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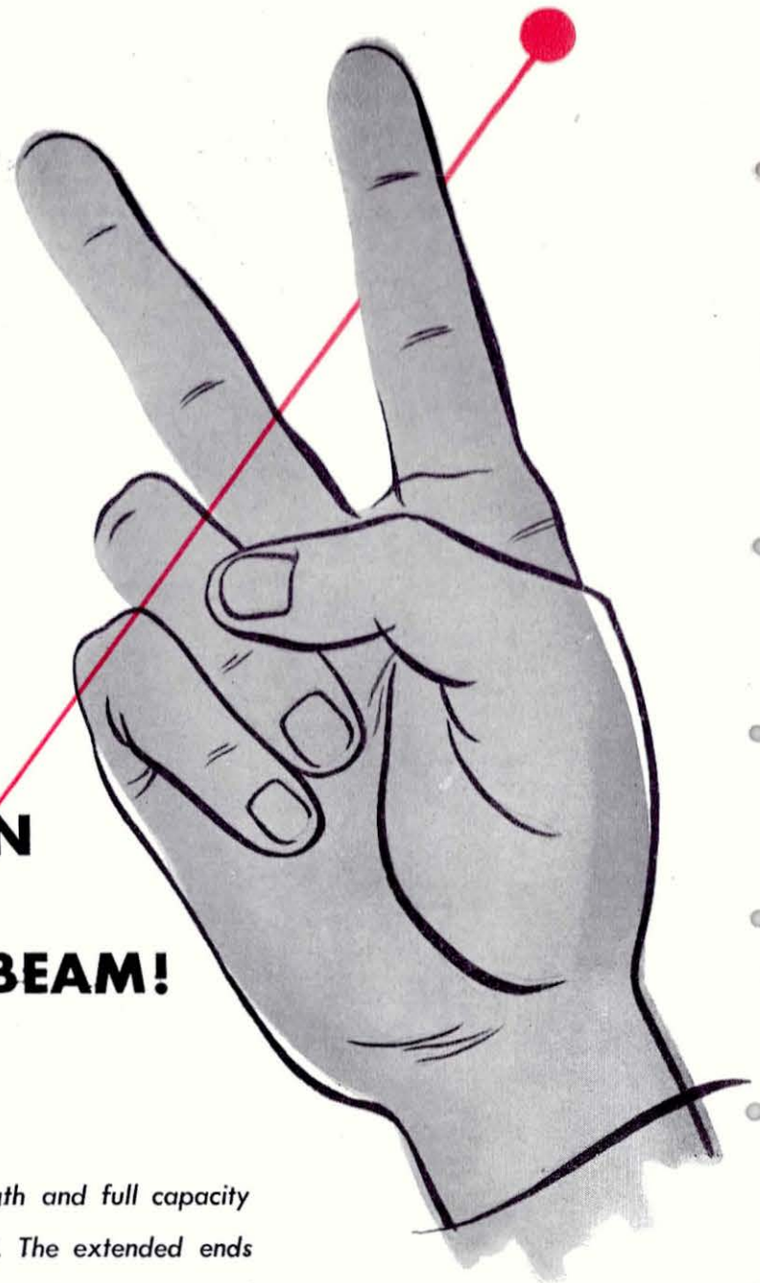

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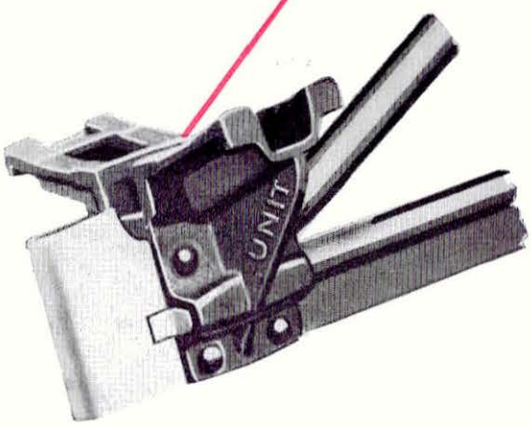

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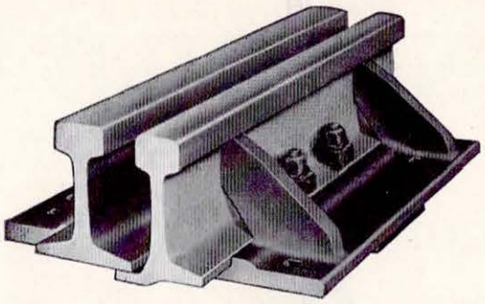

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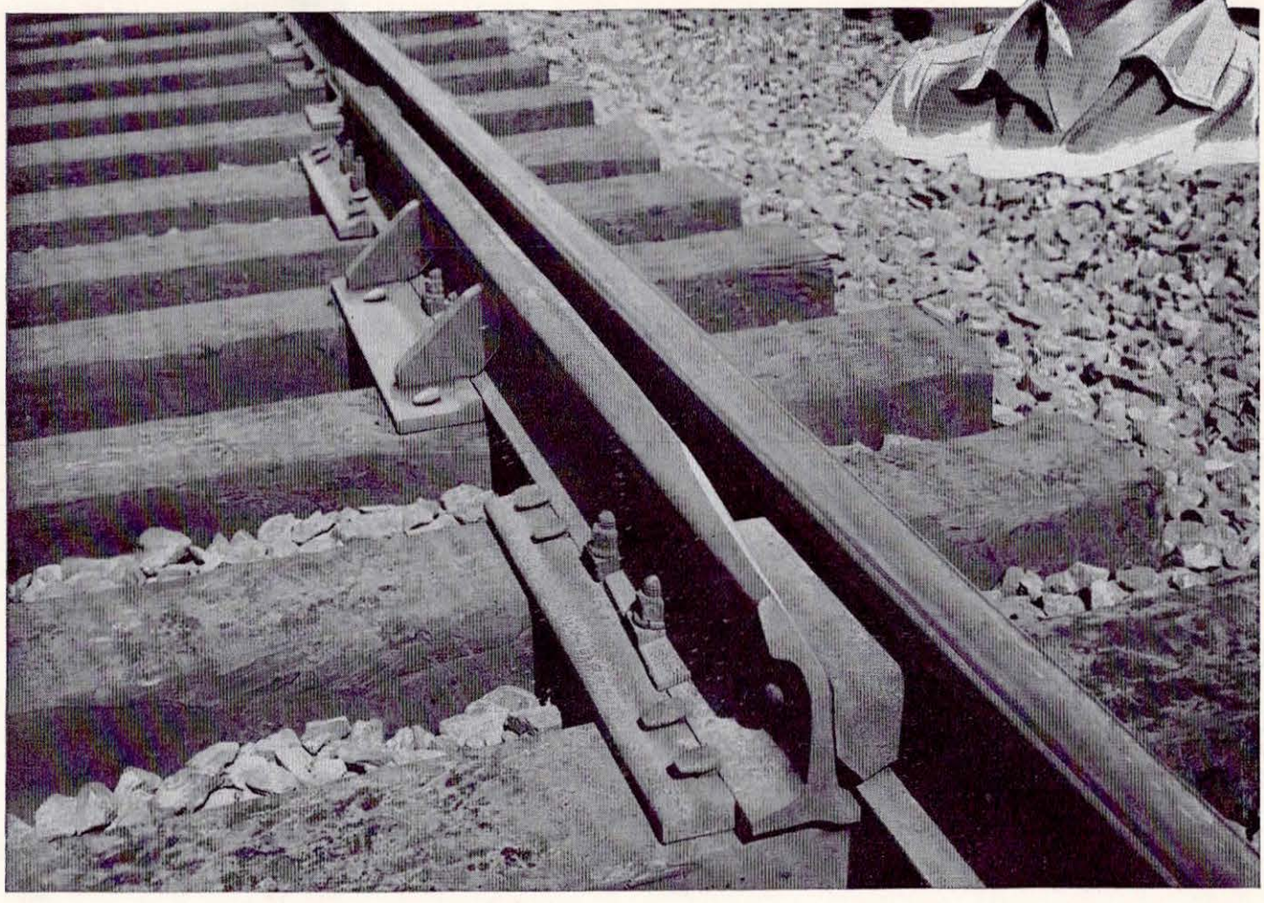

This is Bethlehem's 751 Hook-Flange Guard Rail. It's strong. It's stubborn. It won't budge, once it's fastened in place. Even vicious side-thrust can't knock it out of line.

One quick glance will show you its obvious features. But some deserve a little closer study. Note, for instance, how the "hook" flange dips under the base of the running rail. It's made that way so that the weight of a passing train will pin it down. Thus no amount of jolting or jarring can make the guard rail tip over.

Take a look, too, at those sturdy, welded side braces. This feature gives the rail added rigidity where it is most needed. In the same zone, the straight guarding area, double-shouldered tie plates are provided—an aid to good alignment.

There are four designs of Bethlehem's Hook-Flange Guard Rail: the 751 described here, and others to meet different preferences and needs. Each design is available in several lengths, so that you can easily choose the size and type that suits your requirements.

Write today for illustrated Folder 555. It contains many helpful details, including a diagrammatic page devoted to settings of Hook-Flange Guard Rails.

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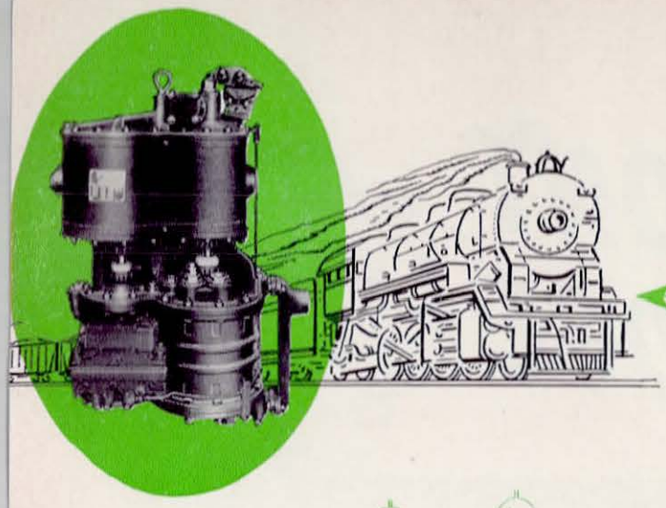

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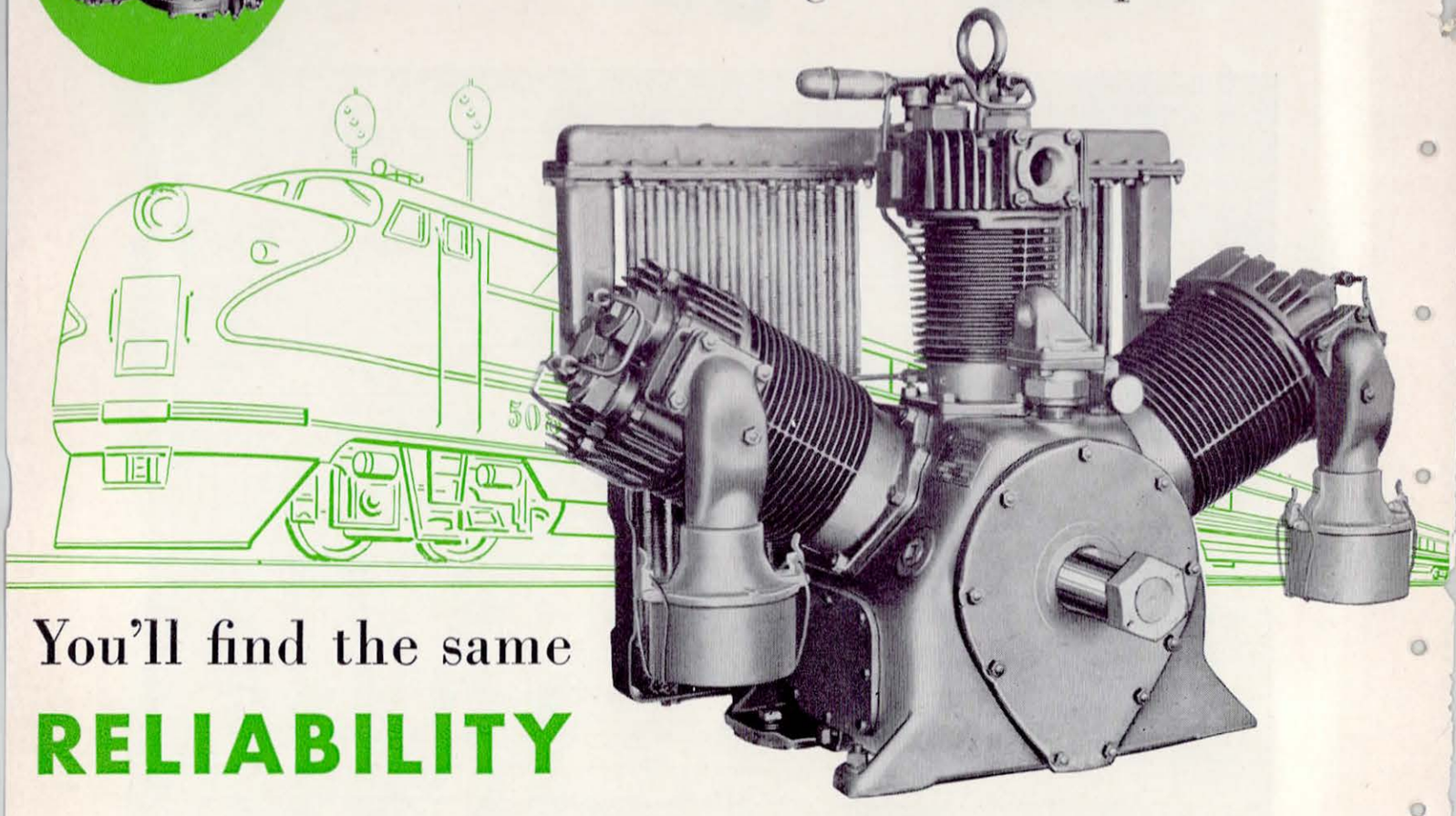

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WILMERDING, PA.

Brakes are Basic to Railroad Progress

Vol. 133, No. 23 December 8, 1952

RAILWAY AGE

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Railway Signaling & Communications Car Builders' Cyclopedia Locomotive Cyclopedia
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Books covering transportation and building

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$ OPERATING...
MAINTENANCE...
MATERIAL EXPENSE

Here are facts from one record *

1. On a total of 34 miles of double railroad track . . . 22.4 miles were converted to single track.
2. Advantage of efficient direction of train movements from one point was obtained.
3. Maintenance of Roadway greatly reduced.
4. Salvaged rails, ties, and ballast were used at other places.

** Additional factual data will be supplied on request*

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DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

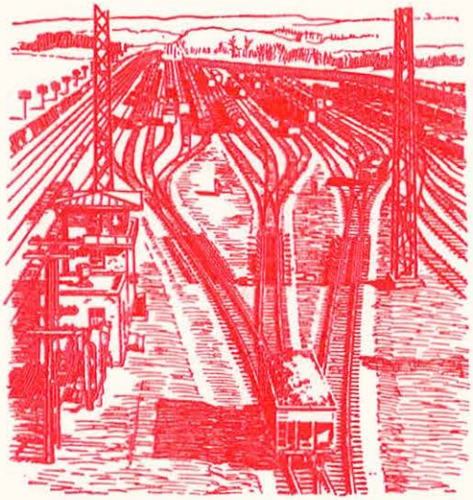
SWISSVALE PENNSYLVANIA

NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

WEEK AT A GLANCE

CURRENT RAILWAY STATISTICS

Operating revenues, nine months	
1952	$7,753,138,898
1951	7,620,559,529
Operating expenses, nine months	
1952	$5,972,924,562
1951	6,003,270,343
Taxes, nine months	
1952	$ 912,274,900
1951	859,620,840
Net railway operating income, nine months	
1952	$ 732,335,415
1951	606,459,584
Net income, estimated, nine months	
1952	$ 502,000,000
1951	391,000,000
Average price railroad stocks	
December 2, 1952	66.81
December 4, 1951	54.12
Car loadings, revenue freight	
47 weeks, 1952	34,641,821
47 weeks, 1951	36,977,312
Average daily freight car surplus	
November 29, 1952	4,708
December 1, 1951	6,253
Average daily freight car shortage	
November 29, 1952	2,709
December 1, 1951	4,192
Freight cars delivered	
October 1952	5,437
October 1951	10,082
Freight cars on order	
November 1, 1952	90,708
November 1, 1951	132,792
Freight cars held for repairs	
November 1, 1952	94,843
November 1, 1951	91,726
Average number of railroad employees	
Mid-October 1952	1,248,178
Mid-October 1951	1,271,168



In This Issue . . .

A STRIKING INNOVATION in railroad passenger equipment has just been unveiled by its owner, the Chicago, Milwaukee, St. Paul & Pacific, and its builder, the Pullman-Standard Car Manufacturing Company. The innovation, of course, is the full-length dome car, with a 68-seat observation dome running from one end of the car to the other, plus a 28-seat under-dome lounge and snack bar. Ten of the new cars—which contain some other unusual features as well—will soon be in service on premier trains of the Milwaukee's "Hiawatha" fleet. They are fully described, with floor plans, and illustrations in full color, in the feature article which starts on page 68.

NEXT YEAR COULD BE A BOOM PERIOD for the railroad supply business. Why? First, railroad net earnings in 1952 may be the highest, with three exceptions, of any year in the past 20—see the report of the investment bankers association's railroad securities committee (page 75). Second, railroad purchases for 1952's first nine months are considerably below those of 1951—see Railway Age's *bi-monthly tabulation (page 55). Third, railroad purchases, historically, closely follow railroad earnings. Hence, good earnings and low purchases in 1952 way well presage heavy buying in 1953.*

MOVEMENT OF HIGHWAY TRAILERS on railroad flat cars between major shipping centers—a transportation service successfully practiced by some railroads in this country—is now getting under way in Canada. Both major Canadian railroad lines are trying it out between Montreal and Toronto. The principal difference between U. S. and Canadian operations appears to be that the Canadian roads are conducting their initial service with their own trailers, rather than making it available to truck operators generally, as is the rule in the United States.

WITH WINTER JUST AROUND THE CORNER—on this side of the corner, that is—it's highly appropriate to consider ways and means of minimizing the cost and trouble which snow inevitably imposes on railroad operations. One means of doing so, at least in heavy snow areas, is by application of electric snow melters in switches. Such a device is described, and some of the basic economics of snow melting are discussed, in the illustrated feature article beginning on page 77.

In Washington . . .

GETTING TRAFFIC BACK ONTO THE RAILROADS is another accomplishment of the A.A.R.'s Car Service Division. The annual

WEEK AT A GLANCE

report of that division, reviewed in the news pages, cites two of the "more prominent" examples of its activities in winning back traffic "on the basis of savings in transportation charges to the government, as well as more efficient use of commercial transport facilities."

TO MAKE THE LONG ISLAND "a self-supporting private enterprise, capable of providing adequate service while maintaining financial integrity and sound credit" is the Pennsylvania's objective in reorganization of the LI, Walter S. Franklin, PRR president told the I.C.C. last week, as that body began what will probably be detailed and long-drawn-out hearings. A report of the opening sessions, in the news columns, indicates that the battle lines between advocates of private and public ownership may be fairly drawn, at least in this one case.

. . . And Elsewhere

A NEW IDEA IN TRUCK TAXATION appears to have stirred up some interest among legislators and officials of northeastern states. Intended to "provide uniform taxation of all interstate vehicles and equalize present inequities in reciprocity agreements," the new tax would be a substitute for all existing state highway-user fees now paid by heavy vehicles (18,000 lb. and up) engaged in interstate hauling. It would be so computed as to equal what vehicles of each weight class are now paying. For example, a 40,000-lb. truck now traveling 45,000 miles a year in intrastate service in New York pays that state about $1,162.50 annually in fuel taxes, registration fee and weight-distance tax. This works out to 2.583 cents per mile. Therefore, under the proposed single tax, all 40,000-lb. interstate trucks, whether owned in New York or elsewhere, would pay New York 2.583 cents per mile. A 25,000-lb. truck would pay 2.040 cents per mile, and so on. Since existing highway fees vary from state to state, the per-mile rate under the proposed tax also would vary; a 40,000-lb. interstate truck would pay 1.089 cents per mile in New Jersey, 1.380 cents in Pennsylvania, 1.413 cents in Connecticut, etc. It has been suggested that a central auditing bureau might administer the tax for all participating states.

R. V. FLETCHER, special counsel of the Association of American Railroads—formerly vice-president-law of that organization and for a brief period its president—will retire from active service on December 31, following a railroad career of more than 41 years. A biography of Judge Fletcher appears in the news pages of this issue, while his exceptional record of outstanding service to the railroad industry is the subject of editorial comment on page 64.

GROUNDS, due to carbon on diesel generators and other electrical machinery, without dismantling the equipment, can be cleaned up with a machine developed in his spare time by L. E. Legg, electrical engineer—equipment, of the Chicago & North Western. The machine, undergoing trials on that road and used only where all other methods have failed, has been successful 75 per cent of the time. At least one generator has been in service for 8 months with no further trouble since the machine cleared up a carbon ground.

"ONCE A SUBSIDY IS UTILIZED, in whatever form or under whatever proper circumstances at its inception, it has a tendency to exist long after the initial purpose has been served. This lag, like any untreated malady, often produces uneconomic and undesirable results and thus unconsciously or unwittingly adversely affects the long-range public welfare. . . . This influence is affecting the railroad passenger deficit problem."—*From discussion by Kenneth Potter, member of the California Public Service Commission, of the railroad passenger-service deficit before the annual convention of the National Association of Railroad and Utilities Commissioners.*

FINEST TRACK *at* LOWEST COST *in '53*

It's a SURE BET

IF YOUR BUDGET INCLUDES

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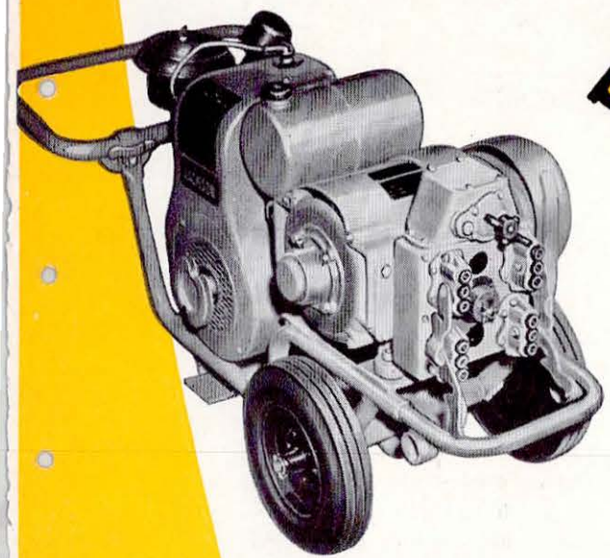
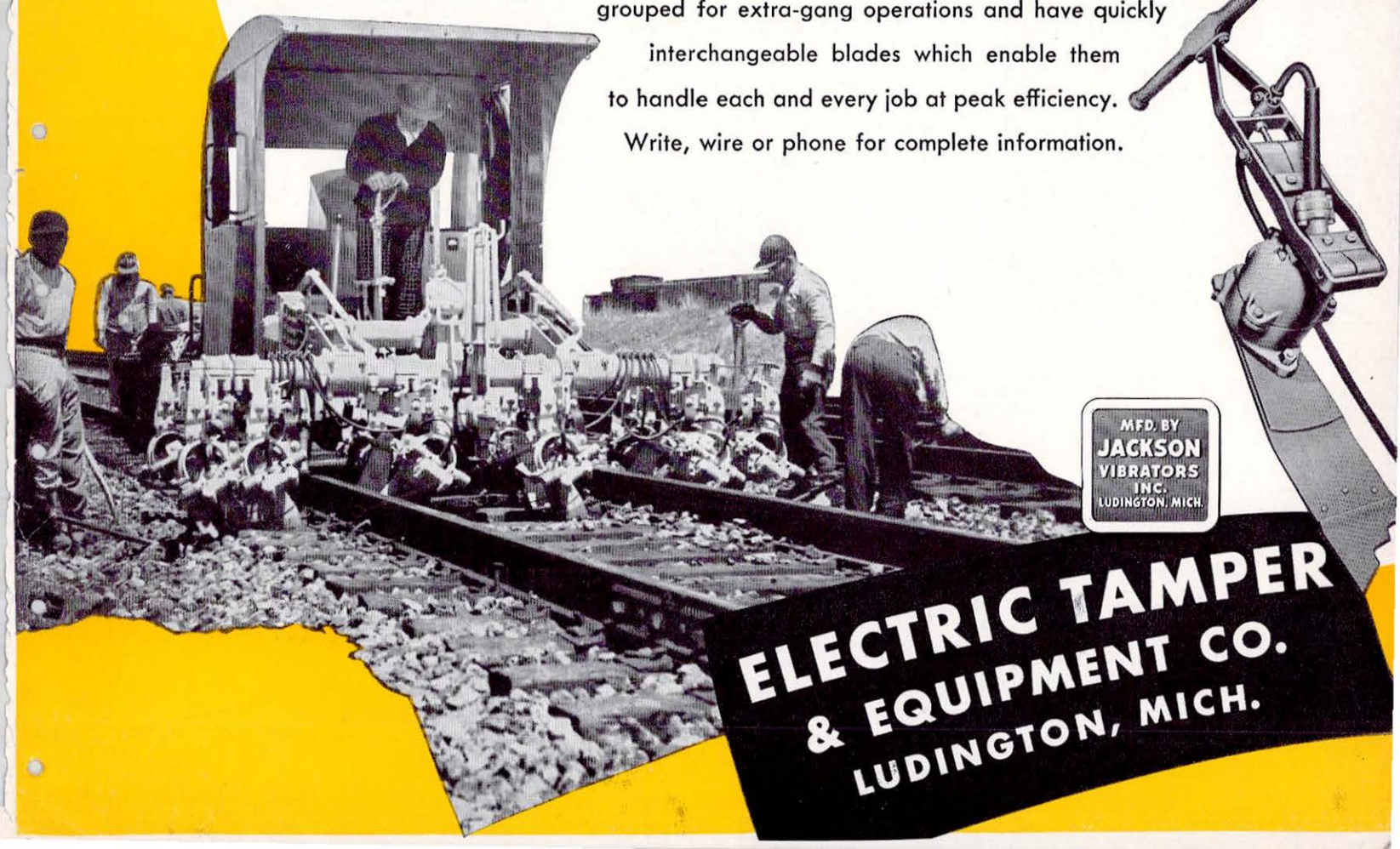


Model M-2 Power Plant serves 2 to 4 manually guided tie tampers. Rugged, compact and portable.

The experience of upwards of 60 leading roads and railroad contractors leaves no logical room for doubt—the JACKSON MULTIPLE is unrivaled in ability to put up the finest track at the lowest cost—regardless of lift or type of ballast. Just as efficient in very low-lift surfacing operations, this machine, in most instances, actually will save more than its cost in a single season.

And for boosting section-gang productivity, there is nothing like JACKSON 4-tool outfits. They are easily portable, readily grouped for extra-gang operations and have quickly interchangeable blades which enable them to handle each and every job at peak efficiency. Write, wire or phone for complete information.



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ELECTRIC TAMPER & EQUIPMENT CO.

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You can put the Brakes on Beam Maintenance Costs!

Don't take it for granted that high maintenance costs are a necessary brake beam evil. Over a billion car-miles with ASF Cast-Steel Unit Beams have proved just the opposite—and now you can get the economy of this same one-piece construction in hanger-type beams, too!

THROUGH LESS MAINTENANCE . . .

Instead of eight or more parts per beam, here's a rigid, one-piece casting that *stays* rigid. Insures a positive linkage—with nothing to flex or work loose. False piston travel is eliminated. Fulcrum and heads are cast integral . . . and permanently positioned. In short, the only adjustment of the ASF Hanger-Type Beam ever required is to compensate for brake shoe wear!

AND LONGER SERVICE LIFE . . .

The higher strength of a heavily "beefed up" casting means higher safety, and it also means *longer life.* Performance of thick metal sections is unaffected by corrosion. And service life can be extended almost indefinitely . . . worn surfaces can easily be built up by welding; burned heads renewed by welding on new facings.

YOU SAVE DOLLARS!

The longer life and lower-cost maintenance of the service-proved ASF Cast-Steel Unit Beam add up to one thing: *fewer dollars spent keeping cars "on-line."* Your ASF representative can give you the facts on how the same low-cost dependability applies to the new *ASF Hanger-Type Beam.* Write us today.

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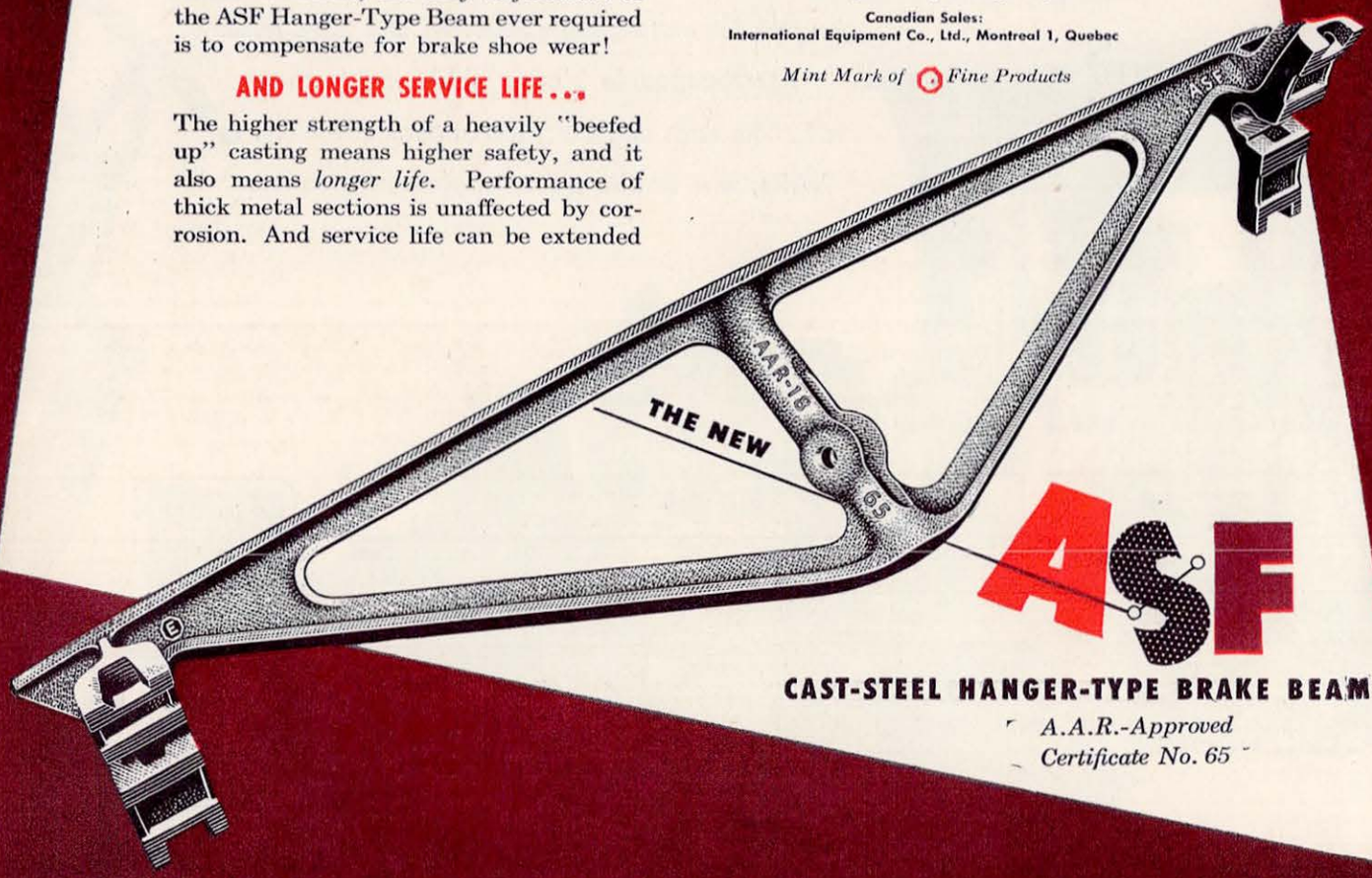

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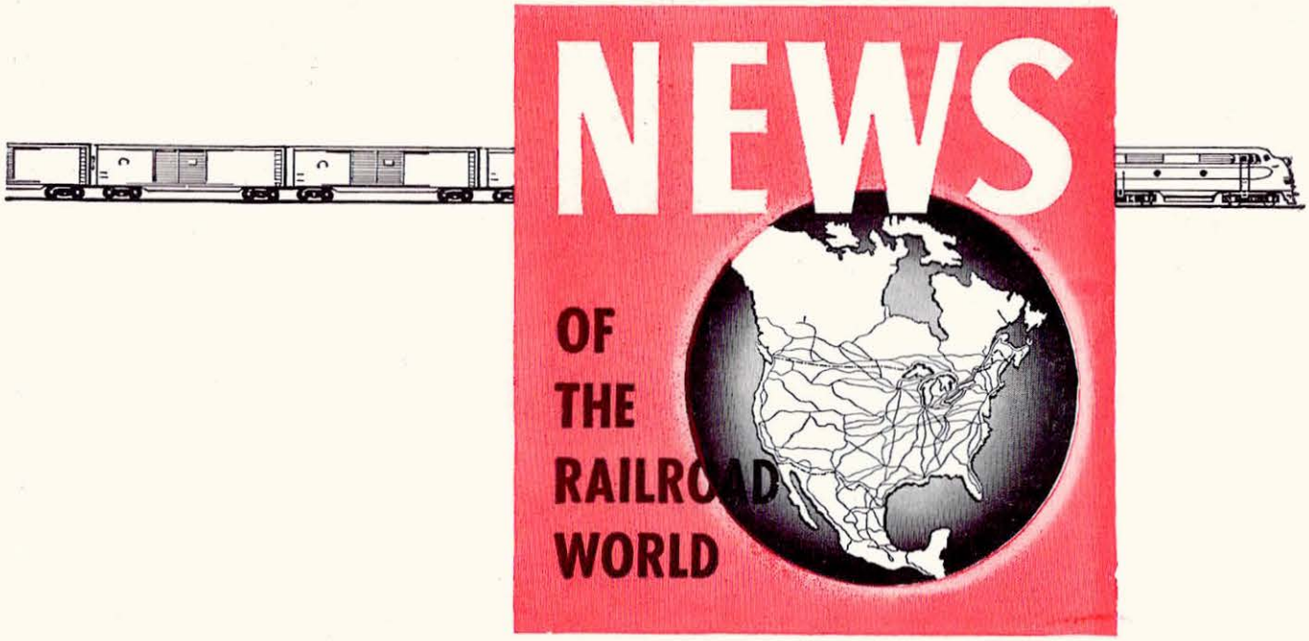
CAST-STEEL HANGER-TYPE BRAKE BEAM

A.A.R.-Approved
Certificate No. 65



Car Service Division Studies Keep Military Freight on the Railroads

Success of its Military Transportation Section's efforts to recoup for the railroads military freight that had been diverted to other carriers, was recorded by the Car Service Division of the Association of American Railroads in its annual report for 1952.

As the report noted, M.T.S. is that unit of the division which has as its "ordinary" assignment the handling of arrangements for organized troop movements, and expedition, diversion and other like actions with respect to military freight. Its traffic-recouping programs come out of special studies; and they are "presented to the military authorities on the basis of savings in transportation charges to the government as well as more efficient use of commercial transport facilities," the report explained.

It went on to give two of the "more prominent" examples. The first involved studies of shipments of airplane engines and lumber by the Air Material Command.

"These studies," the report said, "have convinced the Air Force that by moving such traffic by rail and taking advantage of transit privileges and making several changes in distribution methods they have been able to eliminate a large amount of cross haul of their traffic at a large saving in transportation costs. This has resulted in the beginning of the diversion of this traffic back to the rail carriers, and as full implementation of instructions to all field installations is made effective the amount of traffic regained will be of considerable volume."

The second example was a case wherein the Navy was relieved of empty-mileage charges on 880 new box cars on which it took delivery at a plant in Michigan. The savings became credits in favor of the railroads, which were taken into consideration in the choosing of transport agencies for the Navy's own traffic. The C.S.D. report described that program in this way:

"Arrangements were made through the Car Service Division's district office in Detroit to apply these cars on commercial loading available in that territory to destinations as close as possible to the assigned naval installation. This has resulted in considerable savings to the Navy . . . and . . . such savings have been taken into consideration when evaluating the mode of transportation to be used on their own traffic.

"This is traffic originating at commercial plants on contracts for materiel going to their ammunition depots and has resulted in the change of a number of route orders from truck to rail. The program has also been particularly helpful to rail carriers serving the Michigan and Chicago areas by augmenting the supply of 50-ft. box cars."

Meanwhile, however, the report had referred to the "diversion of military passenger traffic to commercial air lines." Nevertheless, more than 1,200,000 members of the armed forces were handled by rail in organized troop movements during 12 months covered by the report.

Other parts of the report included its discussion of the "short routing of

FREDERIC B. WHITMAN, left, president of the Western Pacific, receives a certificate of appreciation from E. Roland Harriman, president of the American Red Cross. The presentation was in recognition of the 21,000 pints of blood collected by the railroad's blood procurement car, the first in the nation. Named after the railroad's first employee to be killed in Korea, the "Charles G. Sweetwood" went into service in January 1951, collecting blood for the Red Cross from sparsely populated communities in California, Nevada, and Utah (*Railway Age*, January 22, 1951, page 36, and February 5, 1951, page 56).

empty cars." There it was revealed that "work continues upon the so-called Direct Route Plan for disposing of unneeded Rule 3 box cars and this plan should be ready for placing before the interested committees later this year." The plan proposes establishment of automatic points where empty foreign cars could be delivered irrespective of the route of their loaded movement to the point where emptied.

Also the report embodied summaries of the year's developments which had been covered currently in the monthly reviews issued by the division's chairman, Arthur H. Gass.

Canadian Roads Ask Freight Rate Increase to Offset Higher Wages

To offset an apparently certain general wage increase for non-operating employees, the Railway Association of Canada has asked the Canadian Board of Transport Commissioners for an immediate general 9 per cent increase in freight rates.

The rate increase request was filed with the Transport Board on November 28, following by just one week the November 21 majority report of a conciliation board, which had been considering wage increase demands of unions representing approximately 140,000 non-operating railroad workers. This majority report recommended an increase of approximately 16 cents per hour. Such an increase, it has been estimated, if applied to railroad operations alone, would cost the Canadian National approximately $25,273,000 per year, and the Canadian Pacific $16,900,000 per year; if applied, as has been customary in the past, to express, telegraph, hotel and other non-railroad employees, the annual cost would be increased to $31,412,000 for the CNR and to $21,342,000 for the CPR.

A minority report of the same conciliation board, dated November 24, recommended a wage increase for non-operating employees of approximately 26 cents per hour, which, on an annual basis, would cost the CNR over $50 million and the CPR nearly $35 million, if applied to all railroad non-operating and non-railroad employees.

The two major Canadian railroads, "having no practical alternative," have accepted the recommendation of the majority report for a 16-cent-per-hour increase, have announced that such an increase will be extended to their so-called non-scheduled employees, and have begun to accrue amounts sufficient to pay the increase.

The majority report, which the railways have accepted, also called for a check-off of union dues, but refused the labor organizations' demand for a union shop, and for a cost of living "escalator clause," on the ground that this latter clause "was not a fair instrument in a short-term contract."

Meantime, representatives of the employees, who had originally asked for a wage increase of 45 cents per hour, have rejected both the majority and the minority reports of the conciliation board, but have said they were prepared to engage in further talks with the railways, which talks have already begun.

The railroads' latest rate increase application, which has been set for hearing by the board on December 15, is estimated, if granted in full, to yield the railroad additional revenue of approximately $42 million per year, or just about the amount needed to offset the increase to which they have already agreed, of 16 cents per hour in the wages of their non-operating railroad employees. They are, the railroads say in their application, "in immediate need of the general increase in tolls or rates applied for" to meet "the minimum increases" in their railroad operating expenses "attributable to their acceptance of the majority report of the conciliation board." The amounts under consideration "do not include the cost to Canadian National and to Canadian Pacific resulting from such increases in salaries or wages to employees engaged in other than their railway freight and passenger services." They are, the railroads added, "considering and will in due course propose such increases in the tolls or rates . . . of their other services as may be deemed necessary." "Other services" presumably means express and telegraph service.

Coal, Coke Excepted

The requested 9 per cent increase would apply on all freight except coal and coke, which would be subject to flat increases of 10 cents per ton where the rate is now $1 per ton or less; 15 cents per ton where the present rate is over $1 but not over $2; and 20 cents per ton where the existing rate is $2.01 per ton or more. The 9 per cent would also apply to special movements and services of all types, including milk and cream in passenger service, protective service, local switching charges, diversion and reconsignment, port terminal charges and the like.

The present application for a 9 per cent rate increase, designed directly to offset wage increases, is additional to another request which the railroads have pending before the Board of Transport Commissioners, and is made "without prejudice to" that request. The pending request, also for 9 per cent, dates from last July 14 and is the second half of a request aggregating 17 per cent, of which 8 per cent has already been dismissed by the board (*Railway Age*, November 3, page 15).

Freight Car Loadings

Loadings of revenue freight in the week ended November 29, which included the Thanksgiving holiday, totaled 670,167 cars, the Association of American Railroads announced on December 4. This was a decrease of 140,755 cars, or 17.4 per cent, compared with the previous week; a decrease of 151,609 cars, or 18.4 per cent, compared with the corresponding week last year, which did not include the Thanksgiving holiday; and a decrease of 69,998 cars, or 9.5 per cent, compared with the equivalent 1950 week.

Loadings of revenue freight for the week ended November 22 totaled 810,922 cars; the summary for that week, compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, November 22

District	1952	1951	1950
Eastern	137,183	118,408	118,685
Allegheny	159,888	144,807	142,940
Pocahontas	59,065	53,306	47,866
Southern	129,795	120,821	117,273
Northwestern	128,756	96,801	94,700
Central Western	132,649	117,419	120,058
Southwestern	63,586	59,885	60,029
Total Western Districts	324,991	274,105	274,787
Total All Roads	810,922	711,447	701,551
Commodities:			
Grain and grain products	50,798	49,349	50,355
Livestock	13,918	9,455	10,273
Coal	149,434	145,763	128,369
Coke	15,014	16,216	14,677
Forest products	45,732	39,063	40,099
Ore	73,046	45,209	40,711
Merchandise l.c.l	73,754	63,424	71,341
Miscellaneous	389,226	342,968	345,726
November 22	810,922	711,447	701,551
November 15	828,723	814,258	837,458
November 8	829,198	791,403	839,880
November 1	862,012	837,617	863,149
October 25	660,741	864,800	887,935
Cumulative total 47 weeks	34,641,821	36,977,312	35,272,854

In Canada. — Carloadings for the seven-day period ended November 21 totaled 85,875 cars, compared with 85,005 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada: November 21, 1952	85,875	32,204
Cumulative Totals November 21, 1952	3,738,244	1,584,281

Pan-Am Congress Prizes Now Total About $12,400

Five additional awards totaling $6,000 for railroad technical papers to be presented at the Eighth Pan American Railway Congress have been announced by the organizing committee of the congress.

These latest awards, offered by the organizing committee, bring to about $12,400 the 10 cash prizes now available for award to authors of papers to be considered at the congress in

Washington, D. C., and Atlantic City, N. J., next June (*Railway Age*, August 18, page 58.)

Four of the new awards are $1,000 each for the best papers on railroad equipment and power; accounting, statistics and tariffs; legislation and administration; and general railroad subjects. The fifth prize of $2,000 will go to the paper most clearly evidencing "originality of thought and approach in the development of a practical and workable contribution toward solution of a significant railway problem."

Papers prepared by residents of the United States should be submitted in triplicate by December 15 to Dr. Lewis K. Sillcox, vice-chairman of the board of directors, New York Air Brake Company, Watertown, N. Y., who is chairman of the papers committee of the congress.

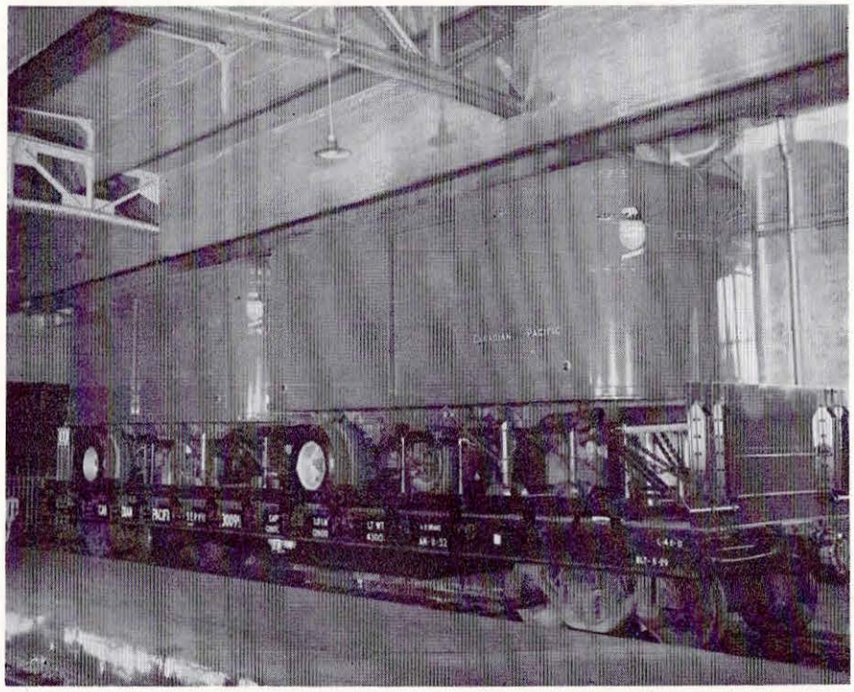
CPR, CNR Inaugurate "Trailers on Flats" Service

A type of transportation new to Canada — transportation of highway trailers on flat cars—was inaugurated by the Canadian Pacific on December 1 and will be inaugurated by the Canadian National on or about January 1. Initial operation by both companies will be between Montreal and Toronto, but both have announced that the service may later be extended to other parts of Canada if it proves successful.

The service provided by both railroads is patterned, generally, after that offered by the New York, New Haven & Hartford and other railroads in the United States, i.e., highway trailers are loaded at shippers' business establishments in either Montreal or Toronto, hauled to railroad terminals by trucks or tractors, loaded on flat cars for movement by fast freight train to destination, and again hauled by truck to consignees' plants or warehouses for unloading.

The CNR will inaugurate its initial service with 12 company owned trailers, 24 ft. long, with a capacity of 12 tons each, and with six specially equipped, 50-ton steel flat cars. These cars will be equipped with roller bearings, automatic brake cylinder slack adjusters and rol'ed steel wheels. Their 52-ft. length will permit them to carry two trailers apiece. Floors will be only 3 ft. 5 in. above rail, to provide for easier loading and unloading, and to reduce loaded height to meet clearance limitations. Hinge-type, reinforced steel, counterbalanced 3-ft. aprons will serve as bridges between the cars and ramps now under construction at Montreal and Toronto terminals.

General objective of the service for both companies is to provide a fast, economical overnight truck-competitive merchandise service.



TWO 20-FT. HIGHWAY TRAILERS, with a combined capacity practically equal to that of an ordinary box car, can be carried on a single flat car in the new overnight merchandise service just inaugurated by the CPR, between Montreal and Toronto. To secure the trailers on the cars, jacks are used to raise the weight of the trailer from its own tires and spring suspension. Steel blocks steady the wheels at front and rear, and anchor chains hold the trailer in place. Steel guard rails on the sides of the flat car guide the truck while it is being moved into place on the flat cars by the tractors. Folding steel aprons allow tractors to be driven over more than one flat car to a trailer's assigned location. The trailers are equipped with both side and end doors to facilitate handling on city streets.

PRR Wants LI Restored As Sound Enterprise

The Pennsylvania's objective in reorganization of the Long Island is to make the road a self-supporting private enterprise, capable of providing adequate service to its patrons while maintaining financial integrity and sound credit.

This statement by Walter S. Franklin PRR president, marked the opening of Interstate Commerce Commission hearings last week on various proposals for reorganizing the Long Island property. Mr. Franklin was the first in a series of witnesses supporting the so-called Pennsylvania plan which was filed with the I.C.C. a year ago (*Railway Age*, November 26, 1951, pages 58-60).

Mr. Franklin reviewed the history of the Long Island from the time the Pennsylvania acquired control of the road in 1900. He said LI assets grew from $38,113,000 in 1900, to $133,432,000 in 1948; and he blamed the eventual bankruptcy of the road on "repeated refusal" of fare increases by the New York Public Service Commission and the "increasingly excessive burden" of local taxation.

The Pennsylvania's reorganization plan for the LI provides, among other things, that the New York commission no longer have authority over fares on the road. A rate of return and fair value on LI property would be set by the I.C.C., and within that framework the road would be free to set its own fares. It also would be granted relief from state and local taxes when earnings were down.

J. B. Prizer, general counsel of the Pennsylvania, stated at the beginning of last week's hearings that the PRR plan is a way to bring about reorganization of the LI as private enterprise. He declared that Section 77 of the Bankruptcy Act "is not a device for compelling public ownership"—it was never so intended by Congress.

The LI filed its bankruptcy petition in the courts on March 1, 1949. This action followed the PRR's decision not to make further cash advances to the road for payment of operating expenses and taxes. The LI also faced a $39,936,000 bond maturity on that date.

The I.C.C. hearings are being conducted by Examiner Harvey H. Wilkinson. It was agreed among the participants that presentations on the Pennsylvania plan should be first, with others to follow later. The principal other plan is one filed by the Long Island Transit Authority, a state

ENOUGH CHEESE for 192,000 sandwiches was included in this unusual shipment recently delivered by the Pacific Electric to an El Monte, Cal., food market in preparation for a "Fall Cheese Festival" promoted by the American Dairy Association. The 6-ton cheese was made in Wisconsin.

agency, which seeks to obtain title to the railroad and operate it as a public agency (*Railway Age*, August 25, pages 18-19.)

Mr. Prizer said he expected to complete most of the Pennsylvania presentations by the end of the week, and would then seek a recess in the hearings until after the first of the year. Testimony with respect to any other reorganization plans would be received at the later sessions.

Mr. Franklin's statement outlining the LI's history divided the 1900-1948 period into three parts. He said the initial period, up to 1920, was one of "growth and expansion," the second, up to 1934, was one of physical and financial strength and promise for the future, and the third was one in which conditions were established that caused progressive weakening and final bankruptcy.

"The account of the Long Island's results from operations in the latter period (1934-1948) is a story of continuing deficits, except for five of the fifteen years, and of almost constant obstruction by the public authorities of the management's attempts to overcome those deficits," Mr. Franklin declared.

John A. Hastings, long-time advocate of "postalization" of railroad fares, has offered his own plan for meeting transportation needs of the greater New York area. The plan, submitted to the I.C.C. December 1, called for creation of a New York-New Jersey "bi-state authority" to acquire the LI. Tax-exempt bonds would be issued by the authority to finance modernization of facilities, and construction of a tunnel between Manhattan and New Jersey. The tunnel, Mr. Hastings said, "would enable trains now terminating on the west bank of the Hudson river to enter and service Manhattan and Long Island." This plan also calls for use of equipment capable of "scheduled speeds over long distances of 100 miles per hour" and a "postalized zone fare structure."

CAR SURPLUSES, SHORTAGES

Average daily freight car surpluses and shortages for the week ended November 29 were announced by the Association of American Railroads on December 4 as follows:

	Surplus	Shortage
Plain Box	127	1,624
Auto Box	0	33
Total Box	127	1,657
Gondola	241	613
Hopper	706	238
Covered Hopper	0	45
Stock	773	0
Flat	2	155
Refrigerator	2,684	0
Other	175	1
Total	4,708	2,709

New Haven Adds 20 Trains

The New Haven on November 24 added 20 trains to its schedules, all on the Boston end of the road. This action followed by slightly more than two months the placing in service of 50 new or previously discontinued trains, which were concentrated primarily in the Boston suburban area (*Railway Age*, October 6, page 17).

"We are encouraged to expand our passenger operations by the response we have received from the traveling public to our efforts to provide them with the convenient trains they require," Arthur G. Plante, assistant vice-president, said. "In the first six months of this year the New Haven's passenger count was 1,372,000 more than in the corresponding period of 1951 and the number of passengers returning from the highways to the railroad is mounting daily."

Ralph Budd to Head Group On Brazilian Rail Study

Ralph Budd, former president of the Burlington and chairman of the Chicago Transit Authority, will leave the U. S. shortly after the first of the year to head a group which will confer with the Brazilian government on proposed improvements in that country's railroad system. The group will include George H. Minchin, retired vice-president of the Santa Fe; O. E. Ward, who will retire at the end of the year as superintendent of motive power, lines east; A. G. Reese, district engineer, maintenance of way at Galesburg, Ill.; and T. W. Tizzard, signal engineer, system — all of the Burlington.

Mr. Budd told *Railway Age* that the trip was being made at the request of the U. S. Department of State. He cautioned that formation of this study group in no way presaged adoption of U. S. railway methods and equipment by the Brazilian companies. "Conditions and problems there are somewhat different than ours," he said.

[There are some 22,800 miles of rialway lines in Brazil. Of this total, 12,800 miles are owned and managed by the Federal government; 4,800 miles are federally owned but operated by states; 2,120 miles are both state owned and operated and 3,000 miles are privately owned and operated under state concession. Gages are varied, running from 5-ft. 3-in., down to 1-ft. 11⅝-in., although the majority is meter gage. Approximately 575 miles of lines on ten different properties is electrified. The principal administrative authority is the Brazilian Ministry of Transport and Public Works whose National Railway Department's Authority covers all railways open for public service except those having autonomous management under the ministry.—Editor]

ORGANIZATIONS

George M. Crowson, assistant to president of the Illinois Central, has been elected chairman of the executive committee of the **Public Relations Society of America** for 1953.

The **First Annual Southeastern Transportation Clinic** will be held on December 10 at the University of Georgia, Atlanta. Among the speakers will be A. L. M. Wiggins, chairman

of the board of directors of the Atlantic Coast Line and the Louisville & Nashville, and J. G. Kerr, chairman of the Southern Freight Association. The theme of the meeting will be "Is Transportation Keeping Up With Industrial Development in the Southeast?"

The **Railway Systems and Procedures Association** will hold its next meeting at Chicago's Palmer House on December 11 and 12. The program is as follows:

DECEMBER 11

10 a.m.—Address on "Organization Principles," by James C. Worthy, director of employee relations, Sears, Roebuck & Co., Chicago

Luncheon

Afternoon—Panel discussion on "Problems of the Local Freight Agent," with the following participating: W. L. Ennis, assistant to vice-president, Chicago, Milwaukee, St. Paul & Pacific (moderator); W. L. Bailes, freight traffic manager, Chesapeake & Ohio; E. E. Foulks, general superintendent transportation, Chicago, Rock Island & Pacific; A. R. Schroeder, assistant superintendent, freight loss and damage prevention, New York Central; W. G. Miller, agent, Pennsylvania, Chicago; H. A. Freeman, agent, Grand Trunk Western, Chicago; and J. F. Kohout, agent, Chicago & North Western, Proviso, Ill.

DECEMBER 12

9:30 a.m.—"Objectives of the Railway Systems and Procedures Association," by J. F. Feagler, chief methods research officer, C&O, and president of the R. S. & P. A.

10:00 a.m.—Group discussion of "The Process of Change Induced by Systems Work"

11:00 a.m.—"The Problem of Interline Freight Settlement," by E. Mech, auditor of freight receipts, Illinois Central

12:15 p.m.—Luncheon

1:15 p.m.—Business meeting (members only)

2:00 p.m.—A working demonstration of the Illinois Central's method of interline freight settlement, to be held in the offices of the International Business Machines Corporation, 618 South Michigan avenue.

Visitors are welcome at all sessions except the brief business meeting.

Bi-monthly list of Meetings and Conventions begins on page 91.

EQUIPMENT AND SUPPLIES

NP's '53 Budget Set at $23 Million

The Northern Pacific's budget for new equipment and improvements during 1953 totals nearly $23 million. About 60 per cent of this will go for new passenger and freight cars—including the 10 dome coaches six dome sleepers and other new cars announced early in October (*Railway Age*, October 6)—plus 200 70-ton ore cars and 500 refrigerator cars. The passenger equipment will cost approximately $6,150,000 and the freight equipment about $7 million.

Approximately $4 million will be spent on laying of new rail and rock ballasting. Eight diesel locomotives—four switchers and four road switchers already on order — add another $1 million to the total. Additions and improvements to shop, station and other facilities will cost about $2 million. Among the larger projects are construction of a new station at Kennewick, Wash.; additions and improvements to the diesel shop at St. Paul, Minn.; and additions and improvements to the roadway machine maintenance shop at Livingston, Mont.

The 200 ore cars are to be constructed in company shops at Brainerd, Minn., and the 500 refrigerator cars will be purchased from commercial builders. In addition, there is a carryover from the 1952 budget of 1,000 box cars and 250 gondolas, construction of which has been delayed due to a lack of steel.

PASSENGER CARS

The **Baltimore & Ohio** has ordered 11 all-room sleeping cars from the Budd Company for delivery late in 1953. The cars, each of which will have 16 duplex-type roomettes and four double bedrooms, are to be assigned to the "Capitol Limited" and other B&O "name trains" between Washington, D.C., and the west.

MARINE

The **Canadian National** has announced plans to purchase a new steamship to replace the "Prince Rupert" in British Columbia coastal service. Donald Gordon, CNR chairman and president, said that although no definite information about size or cost of the new vessel will be available until discussions of plans are completed, the company is thinking in terms of a ship generally comparable in size with the "Prince Rupert." It is intended to have the new ship in service by the 1955 summer season.

SUPPLY TRADE

Francis W. McPeek, who has been appointed manager of railway sales of Glass Fibers, Inc., Toledo. Before joining Glass Fibers, Mr. McPeek was with Owens-Corning Fiberglas Corporation.

C. A. Richardson, who has been appointed exclusive representative and distributor to railroads, their subsidiaries, and associated industries, for fire-retardant coatings made by the Albi Manufacturing Company. Mr. Richardson will maintain headquarters at 332 South Michigan avenue, Chicago. He formerly was chief engineer of refrigerator car research for the Association of American Railroads.

Willis E. Cleaves has been appointed general sales manager of the Radio Communications division of the **Bendix Aviation Corporation,** to succeed **Arnold Rosenberg,** who has resigned. Mr. Cleaves, a retired naval admiral, formerly was director

Willis E. Cleaves

of aviation sales for the Collins Radio Company, and recently joined Bendix as assistant to general manager. In his new position he will be responsible for commercial and government sales activities of the division.

Clifford F. Hood has been elected president of the **United States Steel Corporation,** effective January 1, 1953, to succeed **Benjamin F. Fairless,** who will continue as chairman of the board and chief executive officer. Mr. Hood also has been elected a member of the board of directors and of the finance committee.

Robert C. Tyson, comptroller, has been elected also vice-chairman of

Charles F. Weil, who has been appointed regional manager, railroad sales, for the general Chicago district of C & D Batteries, Inc., with headquarters at 3454 West Lake street, Chicago. Mr. Weil will handle the firm's trade relationships with railroads in that area, on heavy-duty batteries for railroad service, including locomotive, diesel, carlighting and airconditioning.

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the finance committee and a member of the board of directors, effective immediately; **Harvey B. Jordan** has been elected executive vice-president — operations, effective January 1; **Walter F. Munford** has been appointed president of the American Steel & Wire division, effective January 1, and **Howard E. Isham** has been elected vice-president and treasurer, effective December 1, to succeed **Max D. Howell,** who has retired.

The Eddystone sales organization of the **Baldwin-Lima-Hamilton Corporation** has been divided functionally into two major groups—the transportation sales department and the industrial sales department. **Lewis A. Hester** has been appointed general sales manager, transportation department, in which capacity he will be responsible for sale of locomotives of all types, locomotive renewal parts, dump cars and other items of rail transportation equipment produced by the Eddystone and Standard Steel Works division. **Andrew Liston** has been appointed general sales manager, industrial department.

J. S. Roscoe has been appointed executive vice-president of business administration of the **Lincoln Electric Company.** Mr. Roscoe has been director of purchasing since May 1951 and before that worked as district sales manager in Syracuse, N.Y.; Pittsburgh, and Chicago.

John B. Davenport, vice-president of the **Shippers' Car Line Corporation,** has retired after 32 years of service.

G. T. Marchmont, southwestern and Gulf coast district manager for the **Graybar Electric Company,** has retired after more than 44 years with the organization. He is succeeded as southwestern district manager by **V. A. Elmblad** and as Gulf coast district manager by **J. E. Fontaine.**

John S. Conway, formerly general sales manager of the **Koehring Company,** Milwaukee, has been appointed vice-president in charge of sales, and **John E. Chadwick** has been appointed sales manager.

John S. Conway

Mr. Conway joined Koehring's production department in 1941. He later worked in the parts and repair department, and in 1945 was appointed manager of export. He became general sales manager in 1948. Mr. Chadwick

John E. Chadwick

joined the company in 1945, and directed organization of its sales school education program. He later was appointed assistant sales manager, and for the past year has been western sales manager of the Kwix-Mix Company, a Koehring subsidiary.

OBITUARY

Harry L. Burrhus, a manufacturers' representative since 1922, when he left the Simmons-Boardman Publishing Corporation, where he was employed in the copy service department, died recently.

Paul M. Gillilan, 62, locomotive sales engineer for the General Electric Company, died recently. Mr. Gillilan began his career at G.E. in 1916 as foreman in the testing department in Schenectady. In 1920 he joined the

Paul M. Gillilan

engineering department and from 1924 to 1937 was identified with engineering and sales of electric drive equipment for gas-electric cars. Since 1937 he had devoted his time entirely to railroad sales and applications of diesel-electrics.

FINANCIAL

Central of New Jersey.—*Control by Reading.*—E. T. Moore, president, told CNJ stockholders at the December 1 annual meeting in Jersey City, N.J., that a recent application by the Reading to the I.C.C. for authority to acquire a majority of CNJ's outstanding stock would, if granted, "simply assure continuation of what has been in effect since we came out of reorganization—a majority of the board [of directors] will continue to be elected by stock owned by the Reading." Mr. Moore said the application states the Reading proposes to carry out all phases of the CNJ's reorganization plan and that the latter's employees will not be affected.

The Reading's application said it has an agreement with a Newark, N.J., bank to purchase 8,400 CNJ class A shares for $24 each. The road listed its present ownership of CNJ shares as: 37,776 shares, or 20.5 per cent, of class A stock, and 190,240 shares, or 69.3 per cent, of class B stock, aggregating 228,016 shares, or 49.8 per cent, of the CNJ's outstanding stock in both classes.

Because of a recent court decision denying the CNJ tax benefits anticipated from separation of the road's Pennsylvania and New Jersey operations, Mr. Moore said, permission has been requested of the I.C.C. for authority to assign assets and liabili-

ties of the Central of Pennsylvania to the CNJ. A decision, he added, is expected in time to enable completion of the transaction around the first of the year. A system tax saving of about $250,000 a year is expected to result from consolidation of operations in the CNJ (*Railway Age*, August 25, page 54).

New Securities

Application has been filed with the I.C.C. by:

GREAT NORTHERN.—To assume liability for $8,520,000 of equipment trust certificates, to finance in part 32 diesel-electric locomotive units and 800 freight cars costing an estimated $10,655,500.

	Description and Builder	Estimated Unit Cost
8	1,500-hp. road-switchers (Electro-Motive Division, General Motors Corporation)	$185,750
3	1,500-hp. road-switchers (Electro-Motive)	151,000
8	1,500-hp. freight locomotive "A" units (Electro-Motive)	176,398
8	1,500-hp. freight locomotive "B" units (Electro-Motive)	167,601
5	1,600-hp. road-switchers (American Locomotive-General Electric Companies)	152,900
500	50-ton box cars (Company shops)	6,200
200	50-ton flat cars (builder as yet undetermined)	6,900
100	70-ton covered hopper cars (Pullman-Standard Car Manufacturing Company)	7,200

The certificates, to be dated January 1, 1953, would mature in 30 semiannual installments of $284,000 each, beginning July 1, 1953. They would be sold by competitive bidding, with the interest rate to be set by such bids.

NASHVILLE, CHATTANOOGA & ST. LOUIS.—To assume liability for $2,640,000 of series H equipment trust certificates, to finance in part 500 freight cars and three passenger-train cars costing an estimated $3,316,000.

	Description and Builder	Estimated Unit Cost
400	50-ton hopper cars (Pullman-Standard Car Manufacturing Company)	$ 5,262
100	70-ton covered hopper cars (Pullman-Standard)	7,225
3	lightweight sleeping cars (Pullman-Standard)	162,957

The certificates, to be dated December 15, would mature in 15 annual installments of $176,000 each, beginning December 15, 1953. They would be sold by competitive bidding, with the interest rate to be set by such bids.

NEW YORK CENTRAL.—To assume liability for $11,625,000 of equipment trust certificates to finance in part 60 diesel units, 1,500 freight cars and one Budd RDC-3 car. Estimated cost of the new equipment is $15,519,900.

	Description and Builder	Estimated Unit Cost
28	1,200-hp. switchers (Electro-Motive Division General Motors Corporation)	$106,000
12	1,200-hp. switchers (Electro-Motive)	103,700
16	800-hp. switchers (Electro-Motive)	92,000
4	800-hp. switchers (Electro-Motive)	93,000
1,000	55-ton steel box cars (Despatch Shops)	5,700
500	70-ton steel flat cars (General American Transportation Corporation)	7,200
1	RDC-3 self-propelled passenger-baggage-mail car (Budd Company)	163,500

The certificates, to be dated January 1, 1953, would mature in 15 annual installments of $775,000 each, beginning January 1, 1954. They would be sold by competitive bidding, with the interest rate to be set by such bids.

Security Price Averages

	Dec. 2	Prev. Week	Last Year
Average price of 20 representative railway stocks	66.81	65.85	54.12
Average price of 20 representative railway bonds	94.41	93.90	90.44

Dividends Declared

ATCHISON, TOPEKA & SANTA FE.—common, $1.25, payable March 2, 1953, to holders of record January 30; 5% non-cumulative preferred, $1.25, semiannual, payable February 2, 1953, to holders of record December 26.

CINCINNATI, NEW ORLEANS & TEXAS PACIFIC.—common, $4, semiannual, payable December 18 to holders of record December 6; 5% preferred, $1.25, quarterly, payable March 2, 1953, June 1, and September 1, to holders of record February 14, 1953, May 15, and August 15; $6 preferred, $1.50, quarterly, payable January 2, 1953, to holders of record December 22.

DELAWARE & HUDSON.—$1, quarterly, payable December 27 to holders of record December 11.

DENVER & RIO GRANDE WESTERN.—$1, payable December 16 to holders of record December 5.

ERIE.—year-end, $1, payable December 15 to holders of record December 5.

KANSAS, OKLAHOMA & GULF.—6% preferred A, $3, semiannual; 6% non-cumulative preferred B, $3, semiannual; 6% non-cumulative preferred C, $3. semiannual, and non-cumulative preferred, $3, semiannual; all payable December 1 to holders of record November 22.

MOBILE & BIRMINGHAM.—4% preferred, $2, semiannual, payable January 2, 1953, to holders of record December 1.

NEW YORK & HARLEM.—10% preferred, $2.50, semiannual, payable January 2, 1953, to holders of record December 12.

NEW YORK, NEW HAVEN & HARTFORD.—5% preferred A, $6, accumulative, payable December 17 to holders of record December 5.

READING.—4% 2nd preferred, 50¢, quarterly, payable January 8, 1953, to holders of record December 18.

RICHMOND, FREDERICKSBURG & POTOMAC.—50¢, quarterly; extra, $1, both payable December 15 to holders of record December 4.

SEABOARD AIR LINE.—$1.50, increased, quarterly, payable December 26 to holders of record December 12.

UNION PACIFIC.—$1.25, quarterly; extra $1, both payable January 2, 1953, to holders of record December 8.

UNITED N. J. R.R. & CANAL.—$2.50, quarterly, payable January 10, 1953, to holders of record December 20.

WARE RIVER.—$3.50, semiannual, payable January 2, 1953, to holders of record December 19.

WESTERN MARYLAND.—7% first preferred, $7, on arrears, payable December 29 to holders of record December 15.

Table of Selected Income and Balance-Sheet Items of Class I Steam Railways for the month of August and eight months of 1952 appears on page 94.

RAILWAY OFFICERS

FINANCIAL, LEGAL & ACCOUNTING

Judge Fletcher to Retire

Judge Robert V. Fletcher, special counsel of the Association of American Railroads at Washington, D.C., will retire on December 31.

Judge Fletcher was born in Grant county, Ky., on September 27, 1869, and attended the University of Mississippi at Oxford, Miss., and American University at Washington (LL. D.). He was admitted to the Mississippi bar in 1899 and joined the law firm of Mitchell & Fletcher at Pontotoc, Miss. On January 1, 1906, he became assistant attorney general of Mississippi, and the following year was appointed attorney general. In November 1908 he was named judge of the Supreme Court of Mississippi.

After two years with the firm of Flowers, Fletcher & Whitefield at Jackson, Miss., Judge Fletcher entered railroad service as general attorney of the Illinois Central at Chicago in February 1911. In May 1919 he was appointed assistant general counsel of the United States Railroad Administration at Washington and on March 1, 1920, returned to the IC and served successively as general solicitor, general counsel and vice-president and general counsel. In April 1933 Judge Fletcher was named vice-chairman and general counsel of the Association of Railway Executives at Washington and on November 1, 1934, he became vice-president and general counsel of the

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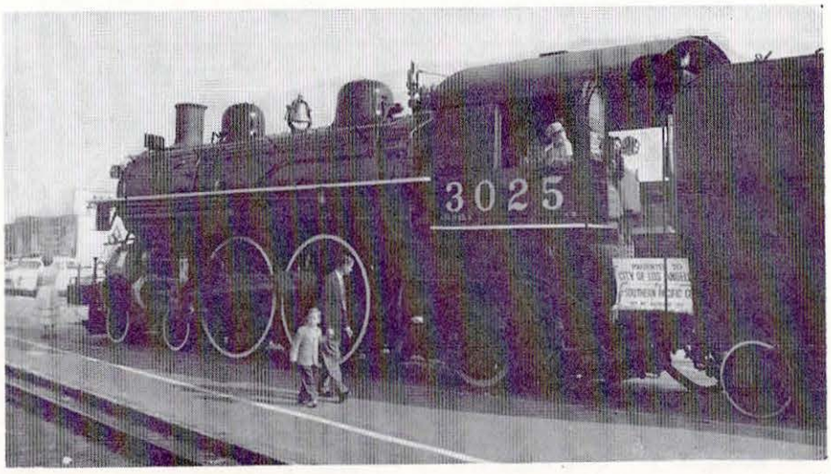
"PRESENTED TO THE CHILDREN OF LOS ANGELES . . .



BY THE SOUTHERN PACIFIC," reads a permanent plaque that has been applied to this venerable SP Atlantic-type locomotive. Both the locomotive and its tender were donated to the Los Angeles City Recreation and Park department to become the number one exhibit of "Travel Town"—a nine-acre display in Griffith park that traces the history and development of transportation vehicles. Three presidential specials — one each for William Howard Taft, Theodore Roosevelt and Woodrow Wilson—plus the "royal train" for Queen Marie of Romania, were among the 48-year-old locomotive's assignments.

Association of American Railroads. He was appointed vice-president, law, of the A.A.R. on January 1, 1942, vice-president—research in November 1944, president in November 1946, and special counsel in April 1947. A photograph of Judge Fletcher appears on page 8; his long railroad career is also the subject of editorial comment on page 64.

As *Railway Age* reported October 13, **J. W. Ebert,** general auditor of the WABASH and the ANN ARBOR at St. Louis, has been appointed comptroller, succeeding **Henry A. Fett,** who has retired at his own request.

Mr. Ebert began his railroad career with the Wabash as an office boy in the accounting department in 1917.

John W. Ebert

He advanced through a series of accounting department positions and, while working, completed accounting courses at LaSalle Extension University and Alexander Hamilton Institute. In 1950 he was appointed general auditor.

Mr. Fett started as an office boy and clerk in the accounting department of the Missouri Pacific at St.

Henry A. Fett

Louis in 1913, moving to the Wabash in 1917. He advanced through the posts of clerk; traveling accountant; special accountant; auditor capital expenditures; general accountant; assistant to comptroller and auditor. In 1947 he was named general auditor and three years later was appointed comptroller of the Wabash, the AA, and affiliated companies.

OPERATING

William T. Elmes, superintendent of the PITTSBURGH & LAKE ERIE, has been promoted to general manager, with headquarters as before at Pitts-

William T. Elmes

burgh, succeeding **Charles G. Stewart,** who has retired after some 40 years of railroad service. **Andrew J. Henderson,** assistant superintendent, succeeds Mr. Elmes as superintendent, and **Leo G. Kramer,** transportation inspector, becomes trainmaster.

Mr. Elmes was born on June 23,

Charles G. Stewart

1904, at Beaver Falls, Pa., and joined the P&LE in 1926, working on concrete and steel design. He became assistant supervisor of track in 1936 and roadmaster two years later. During World War II, Mr. Elmes served as head of the Military Supply Branch, Corps of Engineers, for the Pittsburgh-Louisville district from 1941 to 1943, and as chief engineer, Military Railways in Europe, from 1943 to 1945. He returned to the P&LE in 1946 as chief of the research department. Two years later he became assistant chief engineer and on October 1, 1949, was appointed superintendent, which position he held until his recent promotion to general manager.

Mr. Stewart was born on November 27, 1885, at Hockingsport, Ohio, and began his career with the Pennsylvania in 1912 at Cleveland, later serving for six years with the Baltimore & Ohio. He joined the P&LE in 1927 as a draftsman at Pittsburgh, holding that post until 1940, when he became assistant chief engineer. Mr. Stewart was appointed general manager in 1942.

Andrew J. Henderson

Mr. Henderson was born at Pittsburgh 48 years ago and joined the P&LE as yard clerk in 1922, becoming yardmaster in 1925, assistant general yardmaster in 1936, and general yardmaster in 1940. After serving as trainmaster at College and McKees Rocks, Pa., he became assistant superintendent at McKees Rocks on January 1, 1948, transferring to Pittsburgh on October 1, 1950.

H. B. Smith, assistant general superintendent of the Western General division of the NORFOLK & WESTERN

H. B. Smith

at Bluefield, W. Va., has been promoted to general superintendent of the Eastern General division at Roanoke,

(*Continued on page 86*)

for SAFETY COMFORT RELAXATION

CLASS
B-18-X

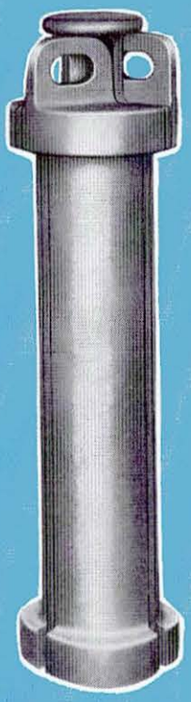
CLASS
A-4-XB

MINER

DRAFT GEARS, BUFFERS AND SAFETY LOCKING PINS

were chosen for

THE MILWAUKEE ROAD SUPER DOME CARS



CLASS
L-4

W. H. MINER, INC. CHICAGO

Designers and Manufacturers of Shock Absorbing Devices for 60 Years

Dieselization Enables "Old Reliable" To Boost Through-Freight GTM 56%

The Louisville & Nashville has increased gross ton miles per train hour in through-freight service by 56% through dieselization. Freight tonnages per train throughout the system have increased 34%.

A fleet of 134 Alco-GE diesel-electrics is playing a leading role in this increased efficiency. As an example of high utilization, the L&N uses only nine 1600-hp Alco-GE freight units to handle all 30 round trips in daily fast freight service between Cincinnati and Louisville.

Rapidly nearing full dieselization on many of its divisions, the "Old Reliable" plans to use Alco-GE locomotives exclusively between Cincinnati, Louisville, and Atlanta . . . one more reason why this great railroad is winning more tonnage to the rails.

113-306

Alco GE

AMERICAN LOCOMOTIVE and GENERAL ELECTRIC

LOUISVILLE & NASHVILLE
301
L&N
LOUISVILL

There's a "DEEP-FLANGE" ALCOLID® TOO

for lifetime service

Railroads with extensive right-of-way through desert country, or where extreme winter conditions prevail, recognize the "Deep-Flange" ALCOLID as the answer to their journal box lid problems.

Like the regular ALCOLID, the "Deep-Flange" model is designed for a lifetime of service. The fully articulated cover is held firmly in place by a sturdy torsional spring. The square-headed retaining pin is locked in place by a flanged hood ear. Thus, there is *no pin rotation or eye elongation*. Installation is quick and easy.

Send for complete details on the "Deep-Flange" ALCOLID to your Alco sales representative in New York, Richmond, Cleveland, Chicago, St. Louis, St. Paul, San Francisco.

ALCOLID

RAILWAY STEEL-SPRING DIVISION

AMERICAN LOCOMOTIVE COMPANY

ENTERPRISE
UNIT DOOR LATCH
For Hopper Cars

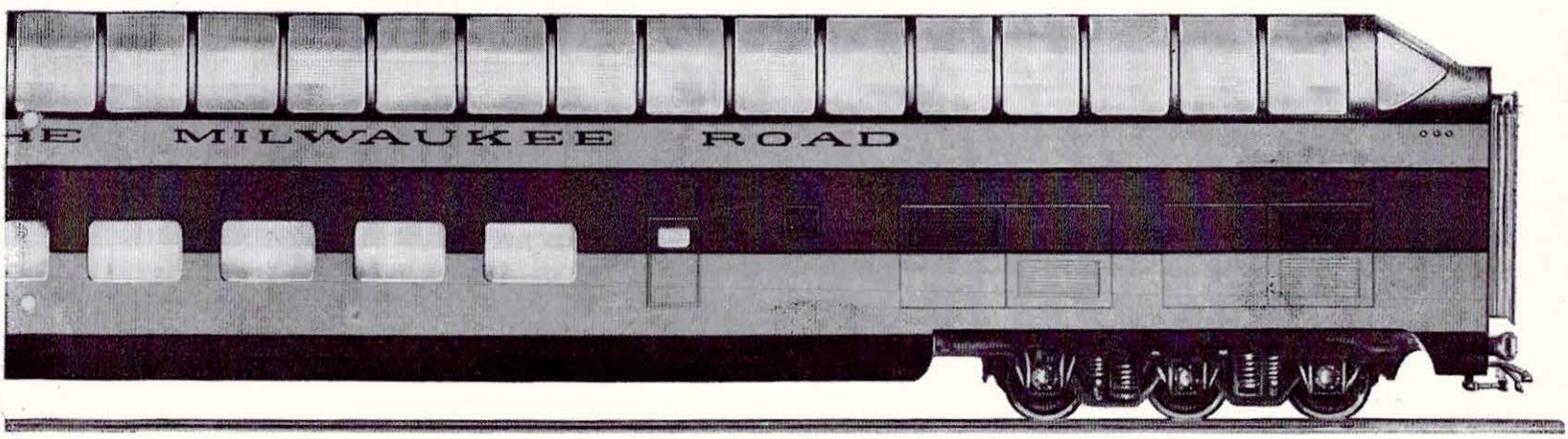
OVER 320,000 HOPPERS
Now Equipped with
ENTERPRISE UNIT DOOR LATCH

Door Operating Devices Exclusively Since 1903

ENTERPRISE RAILWAY EQUIPMENT COMPANY

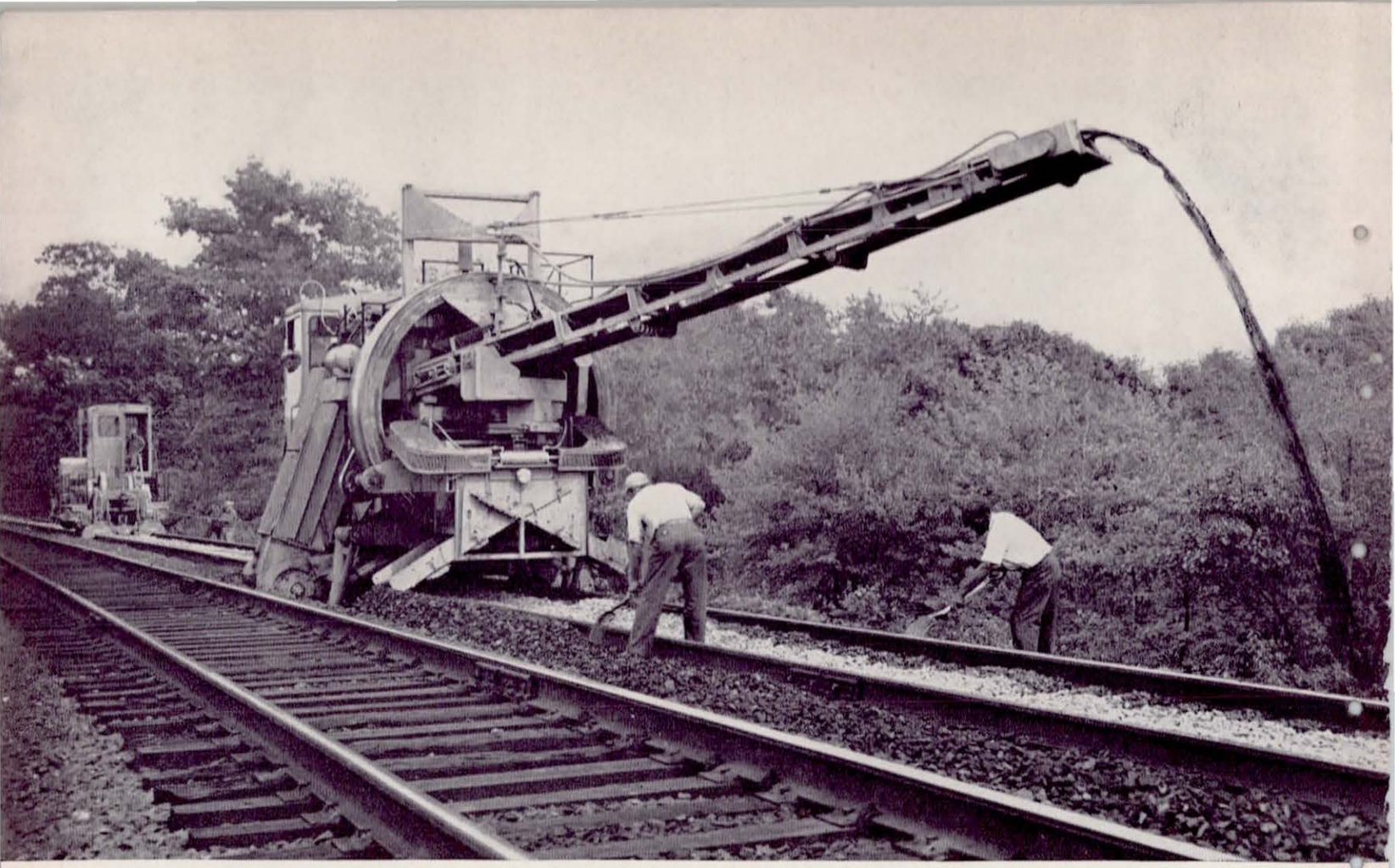
59 East Van Buren Street • Chicago 5, Illinois

Ten full-length Dome Cars built by Pullman-Standard will give passengers an unobstructed view of the scenic wonders along the Milwaukee Road



For the Chicago, Milwaukee, St. Paul and Pacific Railroad Pullman-Standard helped build broader horizons

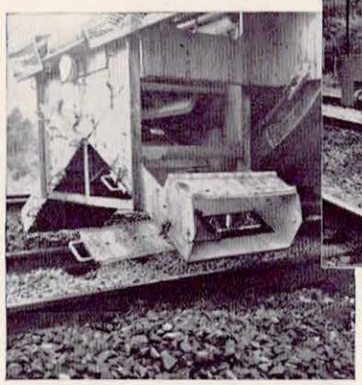
Subsidiary of Pullman Incorporated • **PULLMAN-STANDARD** Car Manufacturing Company
79 East Adams Street, Chicago 3, Ill. • Birmingham • Pittsburgh • New York • San Francisco • Washington



The new Pullman-Standard Power Ballast Cleaner and Winch Car team, the result of three years of field research and engineering, for the first time enables railroads to clean both track shoulders at once at a rate of 1000 to 1200 feet an hour with the labor complement of only four men. Both units have completely automatic controls located in their cabs. A triple-deck screen provides separate cleaning of large and small ballast, thus providing more thorough ballast cleaning and less loss of "fines." (Screen mesh sizes may be changed to meet specifications.) A rotary lift wheel carries the dirt from the screen discharge to the dirt conveyor. The 140° arc of the dirt conveyor is controlled from the cab, allowing distribution of the dirt into either an adjacent or following car or truck or on the berm of either shoulder, or beyond the drainage ditches.

Each of the revolving augers are self-inserting and bore into the ballast, break it up, and deliver the dirty ballast to chain buckets which then convey the ballast to a shaker screen for cleaning. The elevators and auger are operated hydraulically and can be raised or lowered independently. They will cut to any desired depth 8 to 10 inches below the tie base, depending upon the length of the tie.

Self-aligning plows, one in back of each auger, follow the irregularly protruding tie ends to undercut and extrude the hardened seal which fringes the tie base, thus performing an operation essential to good track drainage. The depth of these plows can be adjusted manually to meet local conditions. The cleaned ballast falls into place just in back of these plows as the Cleaner moves forward.



Simple preset distributing mechanism automatically puts the clean ballast back on the track in any location and in the proportionate amounts desired, thus requiring only two laborers to follow in rear of the machine to finish distribution and clear ties. **The Power Winch Car**—its 30,000 lbs. of pulling force enables the Cleaner to push through the most cemented ballast. It runs out ahead of the Cleaner, unwinding its cable and anchors itself in place with two, independent, self-aligning rail clamps, then winches in the cable. The clamps, designed not to slip on oily or peened rail, will function on rail of any gauge, type or condition of railhead without marking the rail. The 1000-foot, doubly looped ⅞" cable, with a breaking point of 60,000 lbs., is wound on a drum equipped with an automatic slip clutch that can be set from 0 to 30,000 lbs. so that it slips when obstacles are met. The cable can be unwound completely in 2 minutes and can be wound in at 600 to 5800 feet an hour.

SUBSIDIARY OF

ROAD & TRACK EQUIPMENT DIVISION **PULLMAN-**

BIRMINGHAM • PITTSBURGH • NEW YORK • WASHINGTON • SAN FRANCISCO • **79 EAST ADAMS STREET**

Four men and new Power Cleaner

An operator for each machine and two laborers—this is all the manpower you need to clean ballast with the Power Ballast Cleaner and Winch Car team. But savings on labor are not all. You'll find that the work rate of 1000 to 1200 feet an hour will give even more savings because this versatile production team *cleans both shoulders simultaneously* to a depth of eight to ten inches below the tie base. Even in multiple track territory, the shoulder plus half the six foot are cleaned with just as few workers and at the same high production rate. On previously cribbed track, both crib and shoulder ballast of both shoulders are cleaned at 600 to 900 feet an hour, depending on how cemented the ballast is.

clean both track shoulders at once

Everything about this work team is designed to give you the highest production rate possible in the track time available. Set-up time takes only a few minutes once each work trick. Both units have powered, lateral set-offs and running speeds of 25 mph. in forward or reverse. Since each machine can run independently or tow the other, power failure in one will not tie up your track or delay traffic.

The Power Winch Car, developing up to 30,000 pounds of tractive force, assures effective operation even in the most cemented ballast, such as is found at grade crossings, and its exclusive rail clamping device, regardless of rail conditions, gives positive anchorage (without marking rail) with a full load on the cable.

at 1000 to 1200 feet an hour

You can prove to yourself on your own track just how this Power Ballast Cleaner team cuts labor costs, makes maximum use of track time without the use of "dead" track or work train, and gives you high quality production at low cost, by choosing one of these four ways: (1) rental for six months with option to buy and all rental payments applied to purchase price; (2) straight rental for six months; (3) deferred quarterly payments over a period of one to three years; (4) outright purchase.

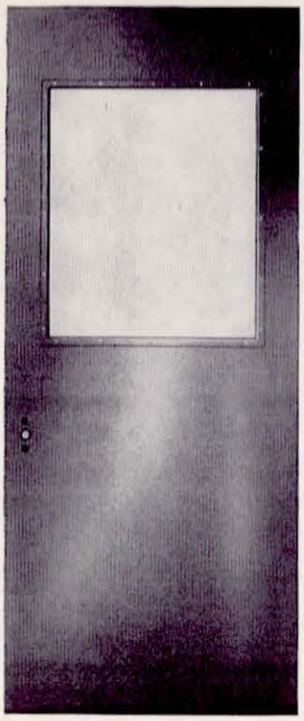
When in Chicago, you are cordially invited to visit our Michigan Avenue Industrial Showrooms.

PULLMAN INCORPORATED

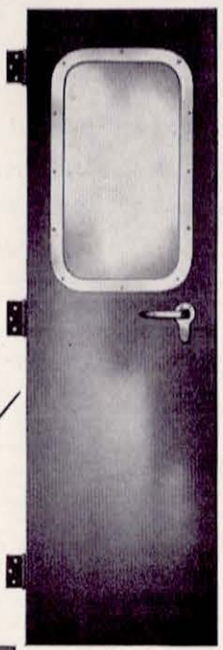
STANDARD CAR MANUFACTURING COMPANY

CHICAGO 3, ILL. • THE HOLDEN CO., LTD., MONCTON • MONTREAL • TORONTO • WINNIPEG • VANCOUVER

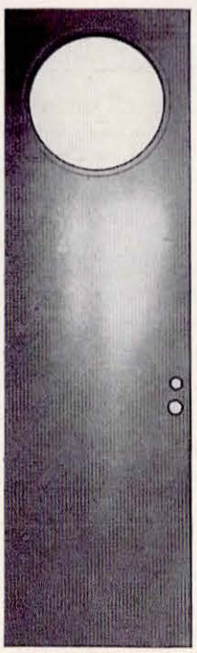
you show good judgment when you specify MORTON hollow metal DOORS



Passenger Car
Vestibule
Side Door



Locomotive
Cab
Doors



...ANY SIZE OR STYLE

...ANY METAL

...ANY SPECIFICATIONS

...ANY USE

Whenever you are in the market for any type of passenger train hollow metal doors, think *first* of Morton. Old-timers in the railroad field have seen Morton Hollow Metal Doors stand up throughout many years of rugged service. They know that, by any standard, it's just plain good judgment to "specify Morton."

Anti-Pinch Shields

These simple closures prevent injury caused by catching hands between hinge-edge of closing door and jamb. They are easily attached and do not detract from attractive appearance or efficient door operation.

Experience—Morton has earned its unchallenged reputation for leadership over a period of 40 years. Today, as always, we refuse to compromise with quality. Our key mechanics have been on the job with us for many years—their skill and integrity are built into every door built in our plant.

Proved Design—Morton Doors are designed and fabricated to assure exact dimensions as specified. Their design provides *extra strength without extra weight*—a distinct advantage. Interior surfaces are painted in two operations; this makes them highly weather-resistant under all service conditions.

Doors to Suit Your Needs—Passenger train car doors—diesel locomotive cab doors—we are in a position to fabricate them all; we can supply sizes from the smallest locker door to the largest baggage car door! Specify your own metal—aluminum, mild steel, stainless steel—and we'll make the doors you want. Hardware and glass provided if specified.

Cost You Less in the Long Run—Initial costs of Morton Doors are moderate, but that's not the only cost advantage! Replacement and maintenance costs are lower in the long run, thanks to the unexcelled quality which is built into every door we produce.

MAKERS OF OPEN-GRIP RUNNING BOARDS AND BRAKE STEPS • KASS SAFETY TREAD • VESTIBULE DIAPHRAGMS AND CURTAINS • METAL DOORS • STEEL FLOORING . . . AND A WIDE LINE OF PRODUCTS FOR RAILROAD USE

MORTON
MANUFACTURING COMPANY
5125 West Lake Street, Chicago 44, Illinois

Brothers Under the Skin **By Hungerford**

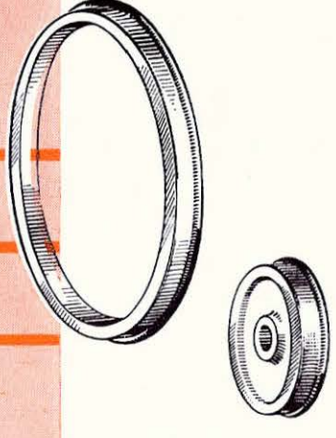
Watch for other railroad cartoons by Mr. Hungerford

We will be glad to send you enlarged copies of this Hungerford cartoon (without advertising copy) for posting on your office and shop bulletin boards, or a cut for your company magazine, at cost.

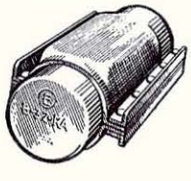
E

PITTSBURGH, PENNA.

EDGEWATER STEEL COMPANY



SERVING AMERICA'S RAILROADS WITH ROLLED STEEL TIRES, WHEELS and DRAFT GEARS



Coming

JANUARY 1953

The ONLY exclusively

RAILWAY Freight Traffic
B & O's $5-million ore pier.....page 99
The Katy sells the Southwest.....page 74
Red Ball Service on Santa Fe.....page 93
Speedier L C L on the Big Four.....page 83
Rock Island's $600,000 Freighthouse...page 61
The Milwaukee plants a crop.....page 73
Cotton Belt performance page 51
Frisco innovations at Springfield....page 55
New CPR express terminal.....page 116
Wabash fast freight page 111
Ship by Rail
OL 448 W

Editorial Objectives:

To perform the dual function of merchandising railroad freight service, and, at the same time, serving as a tool to help the shipper use that service to best advantage. To that end the policies of the new publication—which is the outgrowth of a program started in the parent publication, *Railway Age*—will constitute this clear-cut, five-point program of coverage:

1. Important developments in the railway industry as a whole which directly affect shippers. These include relevant changes in industry-wide policy on rates, service, plant and equipment.
2. Continuous presentation of information useful to shippers about new facilities and services on individual railroads.
3. Monthly summaries of changes in package car routes, symbol freight train schedules, station facilities and useful information issued by the carriers.
4. Views of outstanding industrial traffic managers on railway freight service, on government policies which affect it and on the practices of shippers themselves which are relevant—written especially for *Railway Freight Traffic.*
5. Aggressive editorial promotion of a new national transportation policy with equality and fair play for all carriers.

national publication devoted to Railway Freight Traffic

RAILWAY FREIGHT TRAFFIC Will Supersede the Special Editorial Service and Shipper Distribution of Railway Age Freight Traffic Issues

A New Direct Line of Communication Between Railroads and Shippers

. . . and an effective selling link for many equipment and supply companies too.

Railway Freight Traffic opens a new direct line of interchange of information between the railroads and the shippers of the United States and Canada. It provides a medium in which individual railroads can advertise their freight services as a basic part of an over-all publishing program designed to bring together, as never before, the *user of* transportation services and equipment, and the seller of such services.

The purpose of changing the *Railway Age* Freight Traffic Issues into a separate publication is to broaden the scope of this service and increase its value both to the shippers who read it and to the railroads and suppliers who advertise in it. The new magazine will be a step forward in establishing a clear distinction between the editorial service rendered to shippers and the regular *Railway Age* service to the railway and railway supply industries.

Who Will Receive Railway Freight Traffic?

The new magazine will be distributed to 5,000 leading shippers of the United States and Canada, reaching manufacturers, producers of raw materials, wholesalers, retailers and other important groups. It will also reach 2,000 railway men in the executive, operating and traffic departments. Its circulation objective will be to develop a fully paid circulation among shippers and the railroads. Price, single copy $.50; one-year subscription, United States and Possessions, Canada and Mexico $4.00. All other, $10.00.

Railway Freight Traffic offers a moderate schedule of advertising rates—and these rates are available in combination with *Railway Age*, thus permitting *highly selective* advertising with the greatest economy. The weekly *Railway Age* will continue to cover freight traffic developments for its railway subscribers. It will continue to publish its annual Passenger Traffic Number (next issue May 18, 1953), with its special distribution to interline ticket agents.

SIMMONS-BOARDMAN PUBLICATIONS

NEW YORK 7—30 CHURCH STREET
CHICAGO 3—79 W. MONROE STREET
CLEVELAND 13—TERMINAL TOWER

"Uncanny" is the way many railroad shop people describe the almost completely automatic operation of this NILES Hydraulic Wheel Borer.

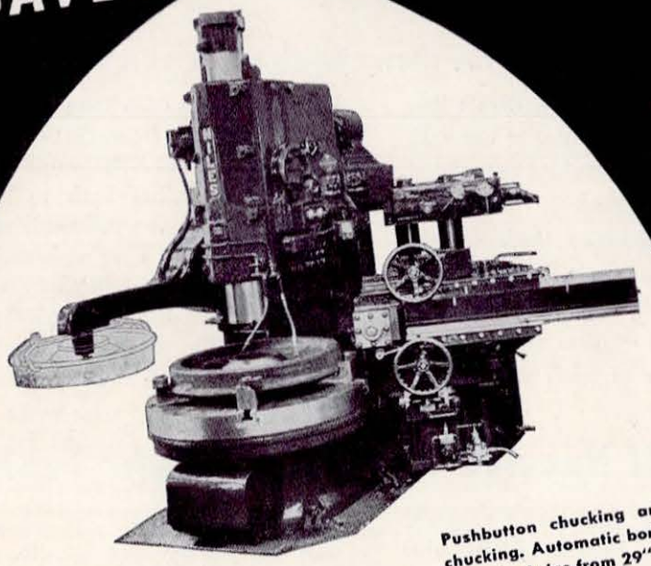
Just drop a car or diesel wheel on the table! . . . automatic chucking centers it. Push the control button! . . . the automatic machining cycle takes over to rough, finish and chamfer the bore . . . faces the hub. Or it bores, faces and shoulders the hub of diesel locomotive wheels.

It's speedy, accurate, pushbutton machining at its best . . . . and it's fastest.

And look at these other features: . . . flange-mounted vertical boring bar . . . all controls within easy reach of the operator . . . very large diameter antifriction table bearings . . . substantial support and wide bearing surfaces for the side head ram.

All excellent reasons for writing for full technical details . . . *today!* Or for calling your nearest B-L-H representative.

BIG TIME SAVER FOR MACHINING WHEELS



Pushbutton chucking and unchucking. Automatic boring cycle. Wheel size from 29" to 48".

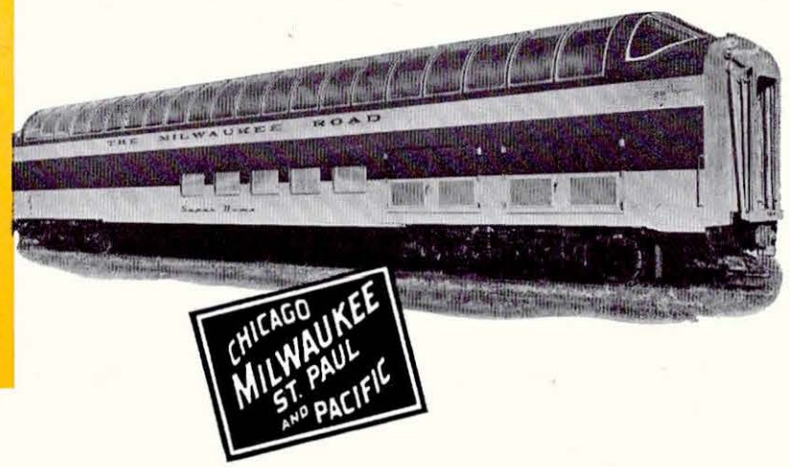
BALDWIN · BLH · LIMA-HAMILTON

Lima-Hamilton Division
Baldwin-Lima-Hamilton Corporation
Hamilton, Ohio

BALDWIN-LIMA-HAMILTON

"Sleepy Hollow"

SUPER-SEATS for the SUPER-DOME



Milwaukee's 10 new Pullman Standard cars have HEYWOOD-WAKEFIELD luxury seating

To match the ultimate in travel luxury offered by their new Super-Dome cars, the Milwaukee Railroad chose Heywood-Wakefield's famous Sleepy-Hollow single and double dome car seats with all their outstanding comfort features. As modern in design as the dome sections in which they are installed, these Sleepy-Hollow seats add to the attractive appearance as well as the matchless comfort and travel ease the new Super-Domes offer the passenger. Your Heywood-Wakefield representative will be happy to give you complete details of the Sleepy-Hollow and the many other Heywood-Wakefield seats available to bring outstanding comfort to your passengers.

HEYWOOD-WAKEFIELD
EST. 1826

Transportation Seating Division
Gardner, Mass.
Orillia, Ontario, Canada
In Canada: Railway & Power Engineering Corp., Ltd.

a few words about alloy steels

or...THE ALTERNATE ALLOY that never interrupted production

This could happen to you! A customer of ours was forced by restrictions and alloy shortages to switch from the Republic alloy steel he'd been using for years to one of the alternate alloys that he could get. He'd dreaded the problems of redesigning tools and dies, of revising heat-treating procedures, of heavy reject rates while the switch was being made.

But these troubles never came!

He called upon the Republic 3-Dimension Metallurgical Service . . . the Republic Field Metallurgist, backed up by the Republic Mill and Laboratory Metallurgists. These three men worked with the customer's metallurgist and his production foreman. Together, they analyzed his requirements, recommended the best available alternate steel, worked out the way to form the steel and heat-treat it.

The shift was made with almost no interruption, and never a headache.

We may be able to do the same job for you . . . and to back up our recommendation with one of the many fine alloys produced by Republic . . . world's largest producer of alloy and stainless steels.

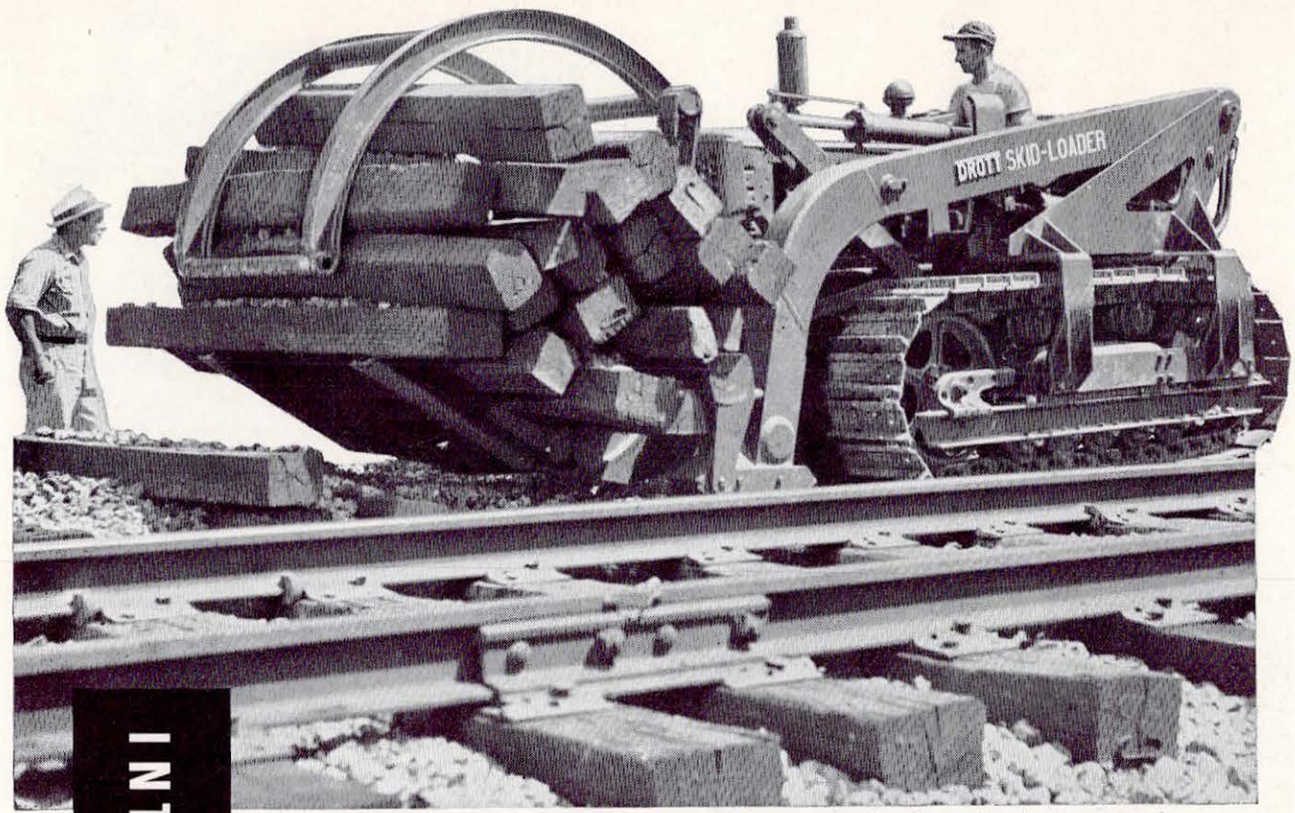
REPUBLIC STEEL CORPORATION
Alloy Steel Division • Massillon, Ohio
GENERAL OFFICES • CLEVELAND 1, OHIO
Export Department: Chrysler Building, New York 17, N. Y.

LAB · MILL · FIELD
3-DIMENSION Metallurgical Service

REPUBLIC STEEL®
Republic ALLOY STEELS

Other Republic Products include Carbon and Stainless Steels—Sheets, Strip, Plates, Pipe, Bars, Wire, Pig Iron, Bolts and Nuts, Tubing

Lifts Ties like Matches



UP THEY COME—Railway ties salvaged from an abandoned second main line, scooped up from the slag ballast, gathered together in bundles by the remarkable one-man unit.

INTERNATIONAL

INTERNATIONAL HARVESTER

POWER THAT PAYS

International crawler with new skid loader scoops up ties from 60 miles of Southern track

When the Southern Railway installed centralized traffic control on one division recently, it became possible to remove 60 miles of rails from second main-line track. Then the Southern wondered how to recover 180,000 ties from the same section.

They found that when it comes to salvaging ties, there's nothing made to match the new skid loader mounted on a rugged International crawler.

A TD-14A crawler with skid loader was put to work, scooping up the ties with reinforced skids, and holding them secure with the machine's claw-like top grab arm. The bundles of from 20 to 25 ties were banded with steel tape from special tape reels mounted on the skid loader frame.

Result: 2,900 ties dug up and tied in bundles each 8-hour day.

The tractor skid loader outfit is a natural for materials handling. See your International Industrial Distributor, and put International *"Power that Pays"* to work for you!

INTERNATIONAL HARVESTER COMPANY, CHICAGO 1, ILLINOIS

Setting a new standard

SHELL TALONA R OIL 40

For all diesel engines in railway service

for anti-wear performance

An advance in railroad diesel lubrication that rivals the discovery of anti-sludge compounds!

SHELL TALONA R OIL 40 combats the main causes of diesel engine wear so successfully that accepted wear standards must now be revised. *This gain is achieved without sacrifice of any basic lubricating function.*

Especially favorable is the wear reduction at the critical top-cylinder zone. By maintaining original cylinder-wall and piston-ring dimensions longer, engine efficiency stays at a high level and crankcase contamination is greatly reduced.

Investigate the anti-wear advantages of Shell Talona R Oil 40 for *your own* diesel units.

SHELL OIL COMPANY

50 WEST 50TH STREET, NEW YORK 20, NEW YORK
100 BUSH STREET, SAN FRANCISCO 6, CALIFORNIA
SHELL BUILDING, ST. LOUIS 3, MISSOURI

SHELL®

HERE'S HOW TO BEAT THE HIGH COST OF MOVING MATERIALS!

For maximum materials handling economy, standardize on Gould "Thirty" Batteries for your electric industrial trucks . . . and systemize battery maintenance with the Gould Plus-Performance Plan described at the left. Here's a sure-fire, cost-cutting combination. Write for full information on Gould "Thirty" Batteries and the Gould Plus-Performance Plan.

THE GOULD PLUS-PERFORMANCE PLAN—A library of technical information that tells you how to select, charge, maintain and determine the condition of lead-acid batteries. It's free. Write Gould Battery Information Headquarters.

The Gould "Thirty"—
America's Finest
Industrial Truck Battery

GOULD *Industrial Batteries*

GOULD-NATIONAL BATTERIES, INC., TRENTON 7, N. J.

Always Use Gould-National Automobile and Truck Batteries

Over 50 diesel road units on the Chicago Great Western Railway use . . .

STANDARD HD
TRADE MARK
Oil

• Serving one of the great industrial and agricultural sections of the country, the Chicago Great Western Railway has been quick to utilize the efficiency and economy of diesel locomotives in its heavy-duty operation.

Used in over 50 diesel passenger and freight road units, STANDARD HD Oil has served on this hard-working railway for over five years. It has provided clean, protective lubrication that in turn has helped keep diesel maintenance costs low.

The Chicago Great Western is one of the more than 70 railroads that now use STANDARD HD oil. This acceptance indicates the ability of this superior heavy-duty lubricant to provide efficient and economical lubrication for all types of diesel locomotives. Make that your basis for investigating STANDARD HD oil. A Standard Oil Railway Department representative will be glad to help you. For his services, write: Standard Oil Company (Indiana), 910 South Michigan Avenue, Chicago 80, Illinois.

STANDARD OIL COMPANY STANDARD *(Indiana)*

THEY'RE HERE!

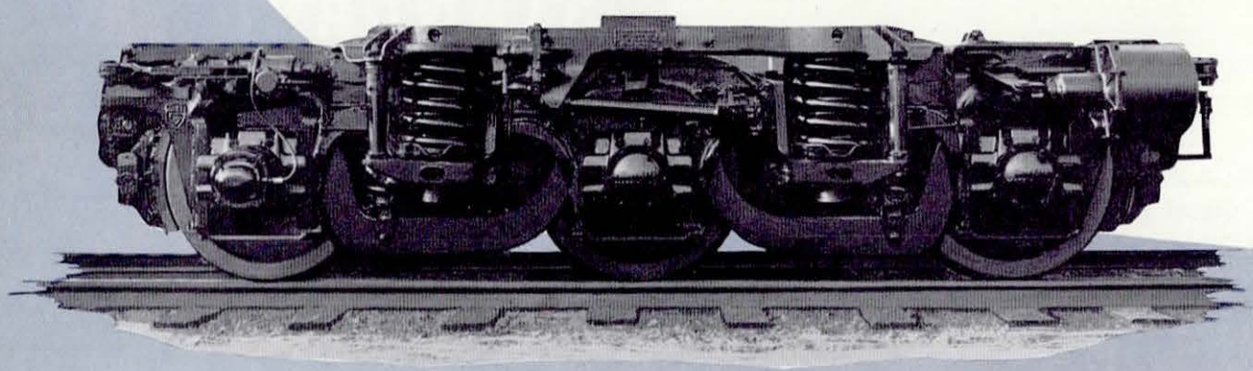
The New Super Dome Cars

Ten full length Dome Cars built by Pullman-Standard

Featuring

New Design **COMMONWEALTH**

One-Piece Underframe Ends and 6-Wheel Trucks

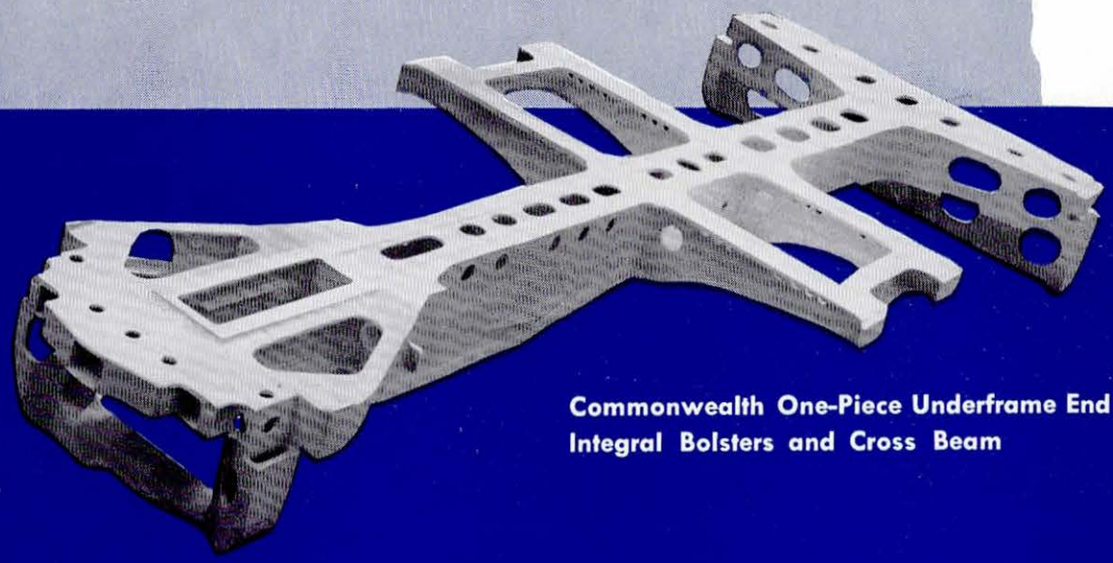


New Design 6-Wheel Truck with Outside Spring Suspension—Unit Clasp Brakes

GENERAL

GRANITE CITY, ILL.

For The Milwaukee Hiawathas



Commonwealth One-Piece Underframe End Casting with Integral Bolsters and Cross Beam

Commonwealth One-Piece Cast Steel 6-Wheel Truck Frame

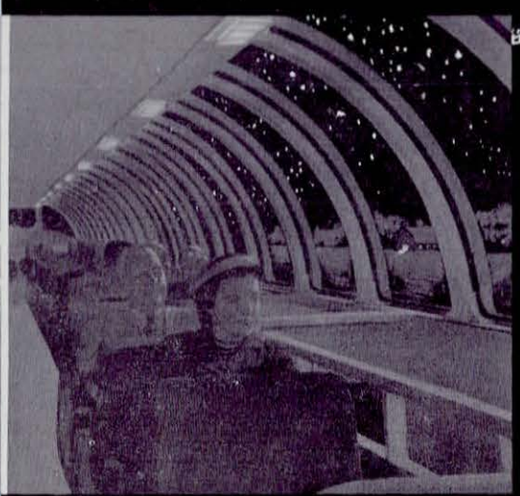
One-Piece Combination Truck Center for New Design 6-Wheel Truck

The **COMMONWEALTH** one-piece cast steel Underframe Ends have great inherent strength and ruggedness, assuring strong, safe passenger cars. The new **COMMONWEALTH** 6-wheel Trucks provide smooth comfortable riding at all speeds, minimum upkeep costs and maximum availability.

STEEL CASTINGS

EDDYSTONE, PA.

NIGHT LIGHT challenges DAYLIGHT with LUMINATOR lighting



ON THE MILWAUKEE "SUPER DOME" CARS BUILT BY PULLMAN STANDARD

The cheerful, friendly and exciting atmosphere of daytime travel on these cars has been carried over for passengers' night time viewing pleasure. This has been accomplished by application of carefully modulated light that provides exactly the necessary amount of light for passengers' safety in moving about the car, still allowing a view of the star-studded sky. Ceiling fixtures provide ample light when passing through tunnels and between trips for cleaning car.

Not only are passengers aboard the train treated to a delightful atmosphere, but these "Dome Cars" become the Milwaukee's "calling card" cars in stations from coast to coast. Have you seen these and other latest lighting developments in the Luminator laboratories? You are cordially invited to do so at your convenience.

LIGHTING ENGINEERS • DESIGNERS • MANUFACTURERS

LUMINATOR inc.

120 NORTH PEORIA ST., CHICAGO 80, ILLINOIS

IN CANADA: RAILWAY AND POWER ENGINEERING CORP.

RUST-OLEUM Protects Metal...

Saves Even Badly Rusted Surfaces!

The Practical Way To Cut Maintenance Costs — Add Extra Life To Rolling Stock, Bridges, Towers, Tanks, Metal Equipment!

Here's how easy it is to stop rust with RUST-OLEUM! Simply apply RUST-OLEUM by brush, dip, or spray directly over rusted surfaces . . . after removing rust scale and loose particles by wirebrush and sharp scrapers. Costly sandblasting and chemical pre-cleaning are not usually required. Dries to a firm, elastic, durable coating. See how RUST-OLEUM can cut your maintenance costs. Specify RUST-OLEUM for all new construction, maintenance, repair or rebuilding.

See Rust-Oleum Demonstration Booth 1237 Plant Maintenance Show Cleveland, Ohio

In All Colors, Aluminum and White

RUST-OLEUM CORPORATION
2594 Oakton Street, Evanston, Illinois

RUST-OLEUM STOPS RUST!

Stopping Rust with RUST-OLEUM 769 D.P. Red Primer

TODAY

—complete output of the SONOTONE-designed Sintered-Plate Nickel Cadmium storage battery is consigned to the United States Government exclusively.

TOMORROW

— this great new battery — developed and now being produced by SONOTONE—will be made available to American industry for civilian use. Inquiries regarding its availability for defense contracts and eventual commercial use are invited.

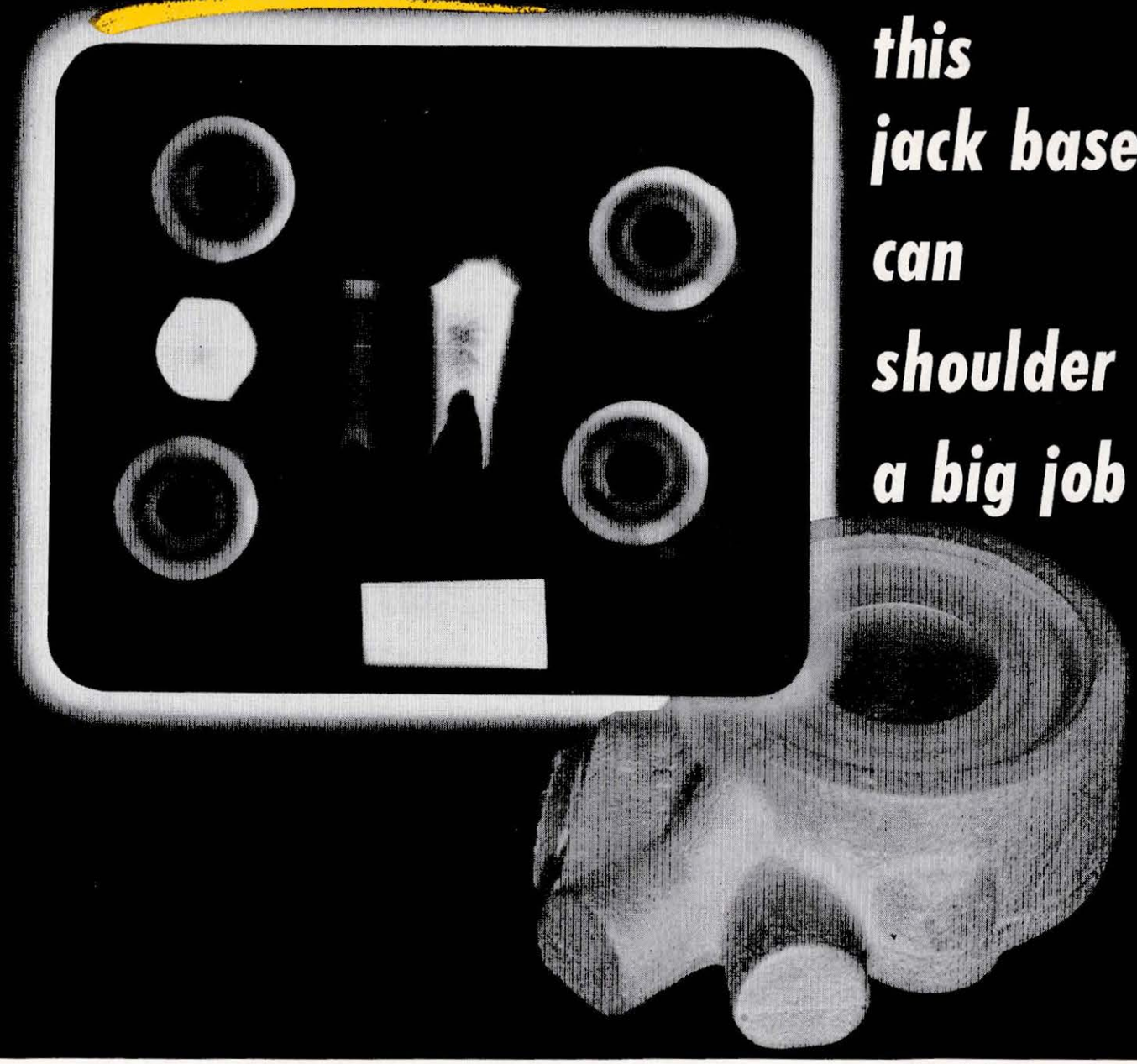
the battery the world is waiting to use

BATTERY DIVISION

SONOTONE CORPORATION

Elmsford, New York

RADIOGRAPHY MAKES SURE this jack base can shoulder a big job



Hydraulic jack bases—as cast.

Hydraulic jacks are born to lift loads many times their own weight and size—to stand internal pressures of thousands of pounds per square inch.

This takes sound castings—soundness which only radiography can prove without damage to the part. And the designers, knowing the casting will be sound, can count on strength without excessive weight.

Instances like this show why more and more foundries are making radiography routine. It is the way to be sure only high-quality castings are released.

If you would like to know how radiography can improve your plant operation, talk it over with your x-ray dealer. And, if you wish, we'll send you a free copy of "Radiography As A Foundry Tool."

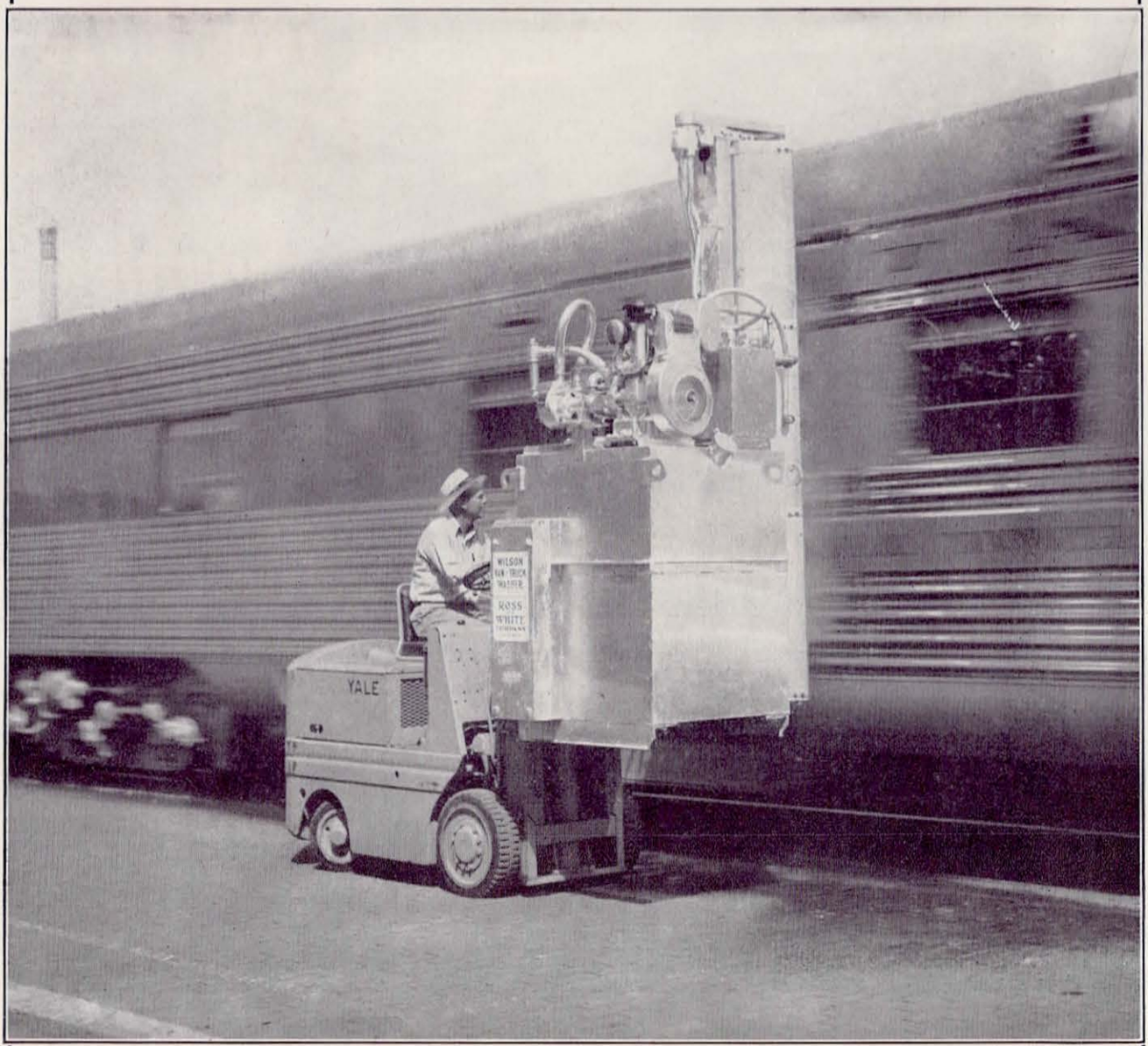
EASTMAN KODAK COMPANY
X-ray Division, Rochester 4, New York

Radiography...

another important function of photography

Kodak
TRADE-MARK

WE ARE NOW WASHING SANTA FE PASSENGER TRAIN WINDOWS AND SIDES ON THREE TRACKS AT ALBUQUERQUE:



OUR "WILSON" PATENT MOVEABLE WASHER ON EACH TRAIN SIDE ON ANY TRACK ON SEPT. 4, 1952 WASHED SIX 13 CAR TRAINS MOST EFFECTIVELY. AVERAGE TIME FIVE MINUTES. SANTA FE PEOPLE PLEASED AS IT WAS IMPOSSIBLE TO GET DIRT ON WHITE HANDKERCHIEF AFTER CLEANING.

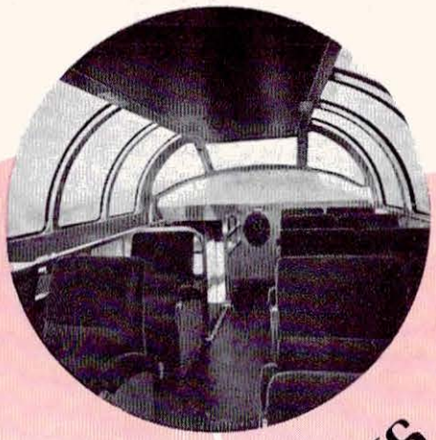
TWO "WILSON" WASHERS *SHIPPED*.

ROSS AND WHITE COMPANY
CHICAGO DAILY NEWS BUILDING, CHICAGO

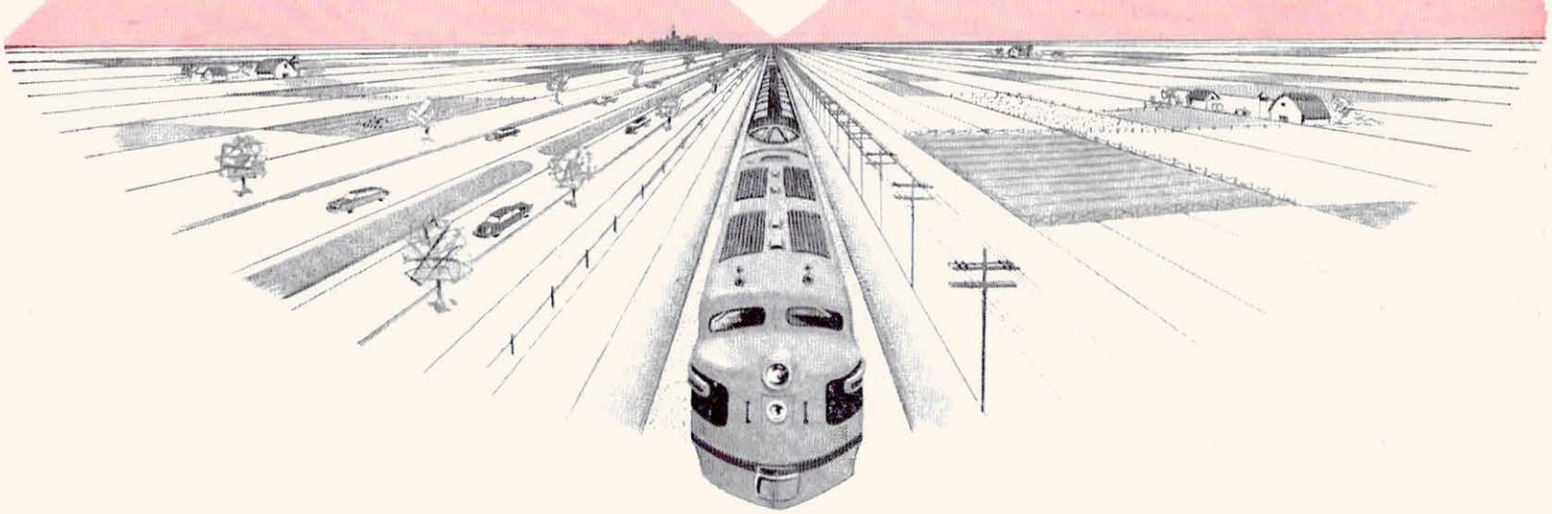
CLYDE P. ROSS, *President* DAVID E. WHITE, *Vice President*
CARLETON P. ROSS, *Contracting Engineer*

NOTE: THE ABOVE IS A NEW FIELD—BUT WE HAVE 22 "WILSONS" WASHING TRAILERS AND VANS SUCCESSFULLY.

VAPOR



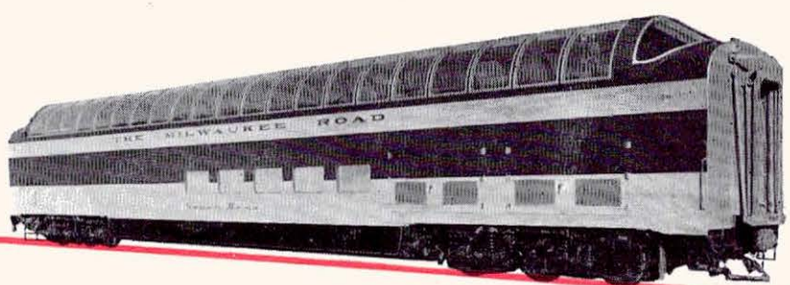
EXPANDING HORIZONS



For railroads and riders, modern dome cars have opened attractive new vistas, yet railroaders know they're a *heating challenge* that calls for long Vapor experience. In no other cars do sun and shade so quickly affect heat demand, nor are such widely variable heating zones combined in one single unit.

For these new Milwaukee "Super Domes" —first to have full-length domes—Vapor developed a heating layout controlled by simple Unizone regulators. These are the same, one-moving-part regulators used on Vapor Unizone and Moduzone Systems.

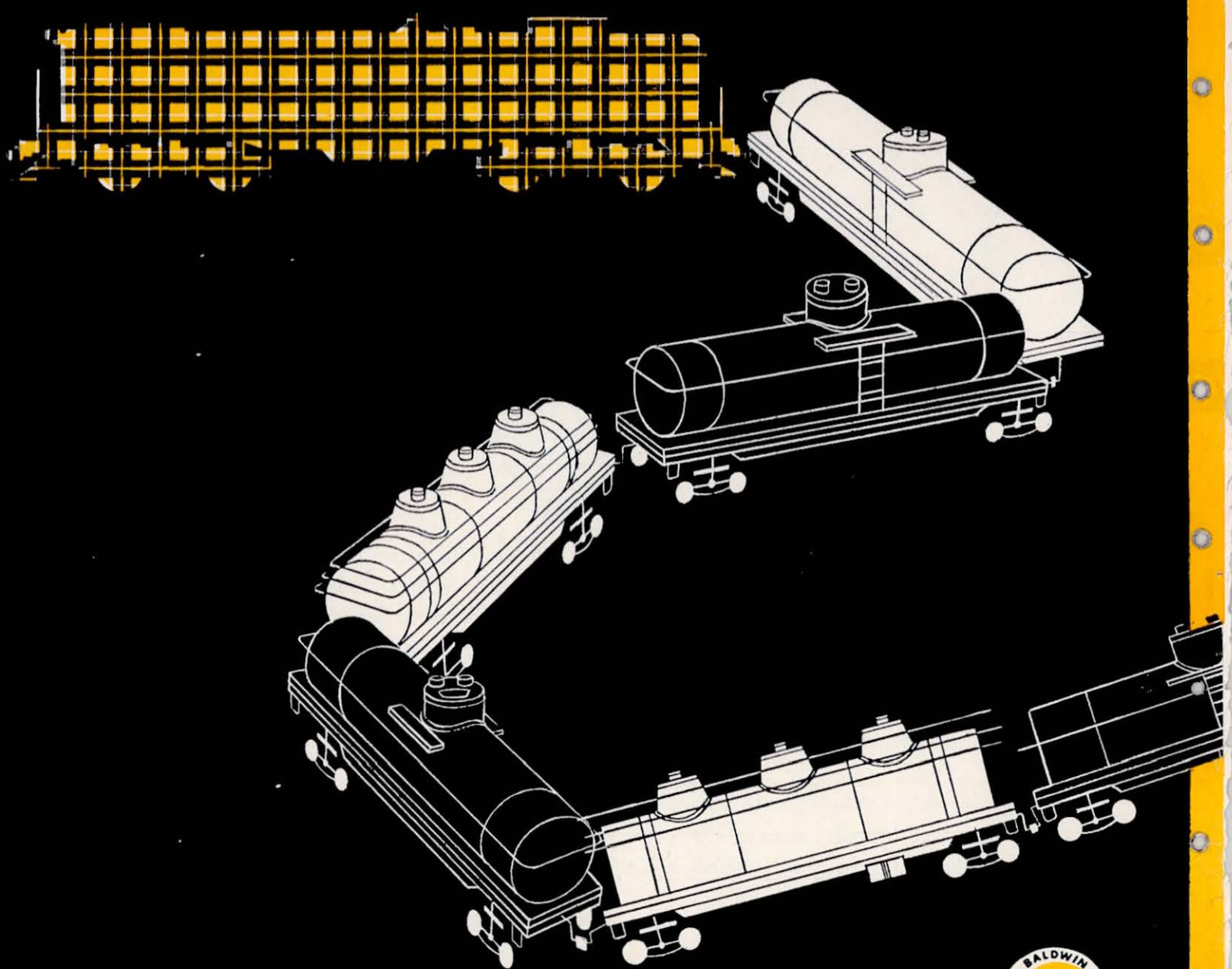
Our congratulations to The Milwaukee Road on this far-sighted new equipment. Upstairs and down, these new "Super Domes" have enjoyable uniform temperatures.



VAPOR

HEATING CORPORATION 80 EAST JACKSON BLVD., CHICAGO 4, ILLINOIS

NEW YORK • ST. PAUL • DENVER • ST. LOUIS • ATLANTA • WASHINGTON • PHILADELPHIA
SAN FRANCISCO • JACKSONVILLE • RICHMOND • HOUSTON • MONTREAL • LOS ANGELES

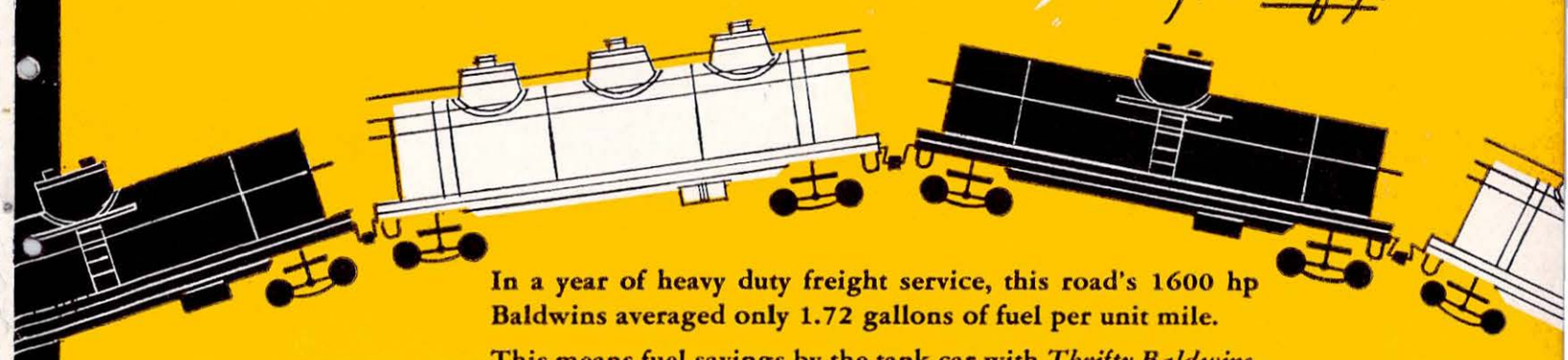


BALDWIN
BLH
LIMA-HAMILTON

WESTINGHOUSE

A Leading Southern Railroad's* Experience Proves Baldwins Are Thrifty

...they're thrifty!



In a year of heavy duty freight service, this road's 1600 hp Baldwins averaged only 1.72 gallons of fuel per unit mile.

This means fuel savings by the tank car with *Thrifty Baldwins.*

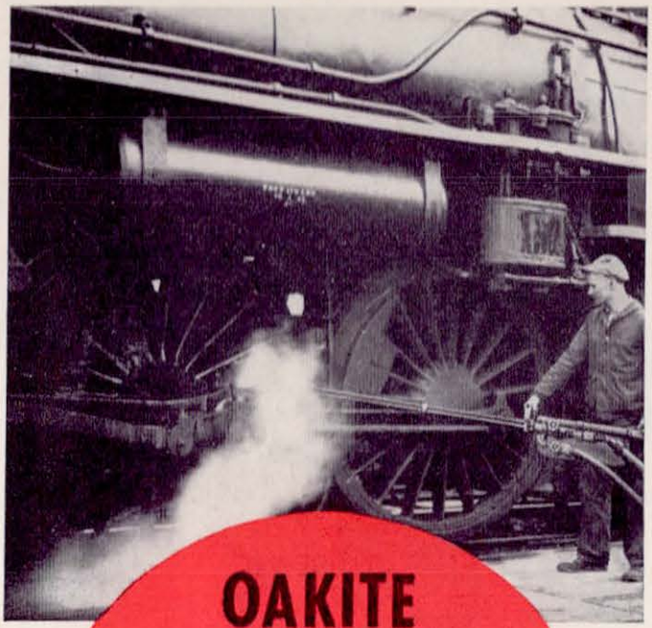
* The facts in this advertisement have been verified by this railroad . . . we'll gladly supply the name of the road if you write us on your company letterhead.

BALDWIN-LIMA-HAMILTON CORPORATION

Philadelphia 42, Pa. • Offices in Principal Cities

BALDWIN-Westinghouse

DIESEL-ELECTRIC LOCOMOTIVES



OAKITE
Steam-Detergent Cleaning
Your Best Answer To Fast, Low-Cost Grime Removal

WHEN you correctly combine pressure, heat and a vigorous detergent solution, and apply these three elements with equipment specially designed for their use in one single operation, you have the BEST ANSWER to the problem of fast, low-cost grime removal from motion gear, driving wheels, trucks, traction motors and other steam or Diesel locomotive parts or equipment.

Oakite Gives You Safe, Odorless, Fast Detergent Action

In Oakite Steam-Detergent cleaning you have this proved, successful combination of elements immediately available. The Oakite Steam Gun applies to surfaces an effective Oakite detergent solution that is safe, odorless, fast-acting. Cleaner surfaces result. You are able to handle MORE work in SHORTER time. And you save money. Let us prove this to you in your own shops on any tough job you select. Simply ask us to have our Oakite Technical Service Representative in your locality call. There is no cost, no obligation.

OAKITE PRODUCTS, INC., 19 Rector St., New York 6, N. Y.

In Canada: Oakite Products of Canada, Ltd. 65 Front St. East, Toronto, Ont.

OAKITE
Trade Mark Reg. U. S. Pat. Off.
RAILWAY SERVICE DIVISION

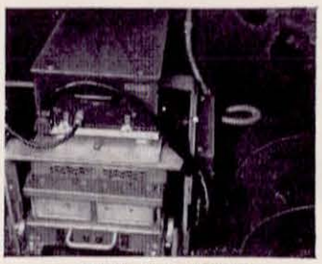
these C-D installations are paying off!

RACK-MOUNTING

C-D vibrator converter installation showing rack-mounting with plug-in feature which simplifies wiring and facilitates installation.

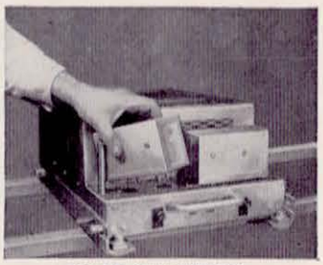
CONVENIENT SIGNAL

Pilot light changes from green to red to indicate operation on stand-by vibrator. No attention is required from the train crew.



SELF-SERVICING

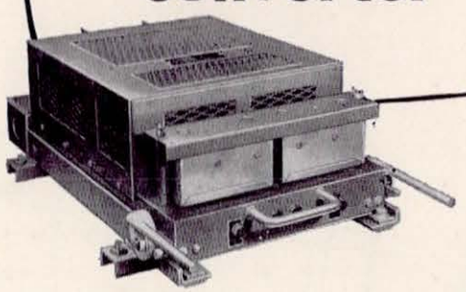
Patented C-D dual vibrator circuit with automatic switch-over, assures uninterrupted radio communications en route.



ONLY 2 MINUTES

This railroad finds that it takes only two minutes to plug in a fresh vibrator at the depot, during routine maintenance check-up.

C-D vibrator converter



- *Saves 60% on cost of initial installation*
- *Saves 50% each year on maintenance*
- *Services itself en route*
- *Field-proved and accepted by over 50 leading railroads*

Write for our catalog, Cornell-Dubilier Electric Corp., Dept. RA-122, Indianapolis Division, 2900 Columbia Ave., Indianapolis, Indiana. Affiliated Member A.R.R.

ONSISTENTLY
CORNELL-DUBILIER
EPENDABLE

VIBRATOR CONVERTERS WITH RAILROAD DEPENDABILITY
by the makers of world-famous C-D capacitors

PLANTS IN SOUTH PLAINFIELD, N. J.; NEW BEDFORD, WORCESTER AND CAMBRIDGE, MASS.; PROVIDENCE, R. I.; INDIANAPOLIS, IND.; FUQUAY SPRINGS, S. C.; AND SUBSIDIARY, THE RADIART CORP. CLEVELAND, OHIO

Photos courtesy Bendix Radio, Motorola, Inc., Railway Signaling & Communications, Missouri Pacific R. R.

MORE THAN A ONE-MAN JOB!

Problems plaguing Diesel operators can be solved only through cooperation of operator, builder and oil supplier!

Yes, it takes all *three*—builder, operator and oil supplier—to solve the many problems created by modern railroad Diesel operation.

Socony-Vacuum has led this cooperative research effort since 1898—constantly makes laboratory tests and field evaluations—exchanges findings with leading builders and operators.

As a result, we have developed Diesel lubricating oils of unsurpassed quality—with exceptional detergency, excellent anti-foaming action and unusual resistance to oxidation.

Our broad experience, research facilities and quality products are always available to help solve *your* problems. Why not give us a call?

Railroad Lubricants

SOCONY-VACUUM

Correct Lubrication

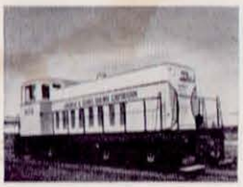
WORLD'S GREATEST LUBRICATION KNOWLEDGE AND ENGINEERING SERVICE

SOCONY-VACUUM OIL COMPANY, INC., RAILROAD DIVISION, 26 Broadway, New York 4, N.Y.

All These "Short-Line" Railroads Use

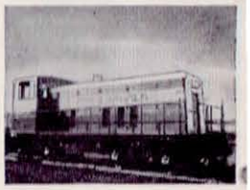
Albany & Northern Ry.

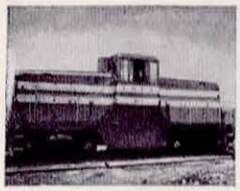
Arcade & Attica RR Corp.


Arkansas & Ozarks Ry.

Ashley, Drew & Northern Railway Co.

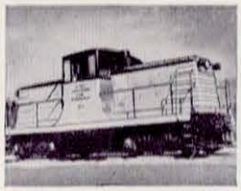
Atlantic & Western Ry. Co.


Baltimore & Annapolis RR


Coudersport & Port Allegany RR Co.

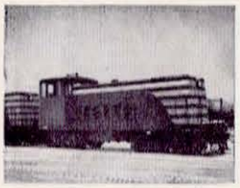
East Erie Commercial RR

Fernwood, Columbia & Gulf Railroad Co.

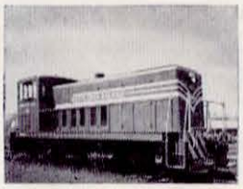

Fonda, Johnstown & Gloversville RR

Fordyce & Princeton RR Co.

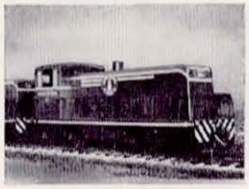
Fore River RR Corp.

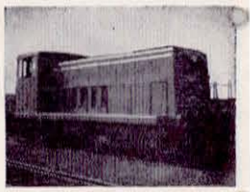

High Point, Thomasville & Denton RR

Hoosac Tunnel & Wilmington RR Co.

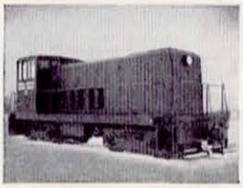

Kelly's Creek RR Co.

Lakeside & Marblehead RR


Lancaster & Chester Ry. Co.


Laurinburg & Southern RR

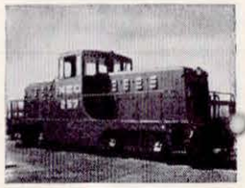
Monongahela Connecting Railroad


Muncie & Western RR Co.

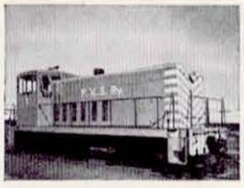
Nelson & Albemarle Ry.

New York Dock Ry.

Norfolk Southern Ry. Co.


Northeast Oklahoma RR

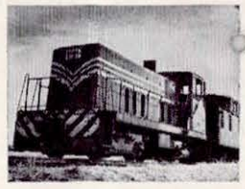
Omaha, Lincoln & Beatrice Railway Co.


Pecos Valley Southern Ry.

Pittsburgh, Allegheny & McKees Rocks RR Co.

Point Comfort & Northern Railway Co.

Quincy RR Co.


Rahway Valley Co.

Sanford & Eastern RR

San Francisco & Napa Valley Railroad

Santa Maria Valley RR. Co.

Saratoga & Schuylerville Railroad Corp.

Skaneateles Short Line RR

South Carolina State Ports Authority

Suncook Valley RR

Tallulah Falls Ry. Co.

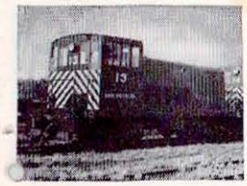
Tama & Toledo RR Co.

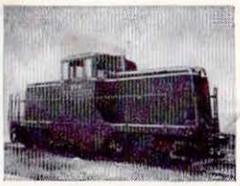
Unadilla Valley Ry. Co.

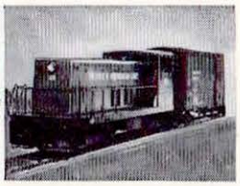
Union Freight RR Co.

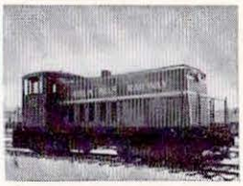
Ventura County Railway

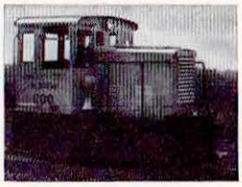
G-E Diesel-Electric Locomotives


Barre & Chelsea RR Co.


Bath & Hammondsport RR

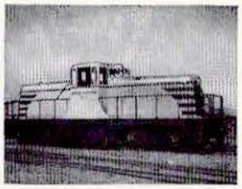

Belfast & Moosehead Lake Railroad Co.

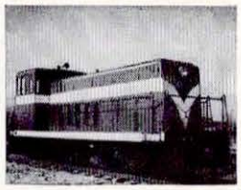

Berlin Mills Railway


Charles City Western Ry.

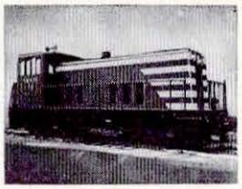
Condon, Kinzua & Southern Railroad Co.

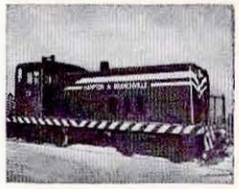
Frankfort & Cincinnati RR


Genesee & Wyoming RR

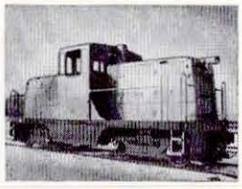

Georgia, Ashburn, Sylvester & Camilla

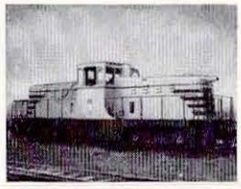
Grafton & Upton RR Co.

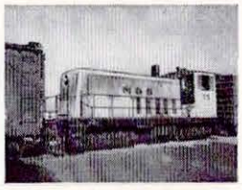

Greenville & Northern Ry.


Hampton & Branchville RR

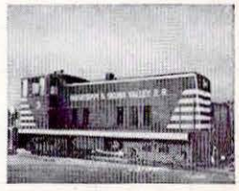
Live Oak, Perry & Gulf RR

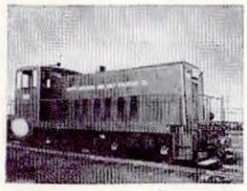

Long Island Railroad Co.


Longview, Portland & Northern RR Co.


Marianna & Blountstown Railroad Co.

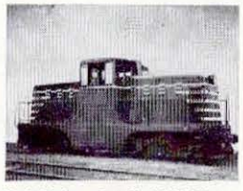
Mississippi Export RR Co.


Mississippi & Skuna Valley Railroad Co.


North Louisiana & Gulf RR

Okmulgee Northern Ry. Co.

St. Johnsbury & Lamoille County RR


Salt Lake, Garfield & Western Ry. Co.

South Georgia Ry. Co.

Steelton & Highspire RR Co.

Washington & Old Dominion Railroad

Willamina & Grand Ronde Railroad Co.

For All Roads... Whether Large or Small

The above 68 member lines of the American Short Line Railroad Association have one thing in common—they all use one or more G-E diesel-electric locomotives. Though representing only a fraction of the total users, they furnish evidence that, for large lines or small, G-E diesel-electrics provide dependable, economical service. For further information on the type of G-E diesel-electric locomotive best suited to your needs, contact your nearest G-E sales office, or write to *General Electric Co., Schenectady 5, N. Y.*

121-61

You can put your confidence in—

GENERAL ELECTRIC

"Tailor-made"

Esso Andok Lubricants

better lubricants

for better protection

THE IDEAL LUBRICANT — for all traction motor armature bearings... it has successfully performed in many anti-friction bearings in auxiliary equipment on passenger cars and locomotives.

ANDOK LUBRICANT GIVES 3-WAY SERVICE *when properly used* for important traction motor armature bearings:

1. Avoids overgreasing.
2. Avoids undergreasing.
3. Helps prevent introduction of dirt into bearings.

Bearings lubricated with famous Andok Lubricant can be completely sealed after overhaul... should run under ordinary use for 400,000 miles without further attention. For high-quality, long-lasting lubrication protection that saves on maintenance costs... specify Andok Lubricant.

BACKED BY CONSTANT RESEARCH — continuing tests *in the lab* and *on the road* make certain that Andok Lubricant keeps pace with progress and latest railroad lubrication needs.

BACKED BY CONSTANT FOLLOW-UP — on-the-job check-ups by Esso Sales Engineers watch the dependable performance of Esso Railroad fuel and lubricants. Be sure to call on Esso for any railroad fuel or lubricating problems.

The Sign of QUALITY — ESSO — *The Symbol of* SERVICE

RAILROAD PRODUCTS

SOLD IN: Maine, N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Penna., Del., Md., D. C., Va., W. Va., N. C., S. C., Tenn., Ark., La.

ESSO STANDARD OIL COMPANY — Boston, Mass. — New York, N. Y. — Elizabeth, N. J. — Philadelphia, Pa. — Baltimore, Md. — Richmond, Va. — Charleston, W. Va. — Charlotte, N. C. — Columbia, S. C. Memphis, Tenn. — New Orleans, La.

Nine Months' Purchases $1,808,000,000

1952 RAILWAY PURCHASES*

	September (000)	Nine Months Totals 1952 (000)	Nine Months Totals 1951 (000)
Equipment**	$78,439	$423,303	$818,621
Rail	9,875	53,669	77,592
Crossties	9,596	83,103	69,717
Other Material	91,480	863,619	1,057,008
Tot. from Manufacturers	$189,390	$1,423,694	$2,022,938
Fuel	42,515	384,079	465,611
Grand Total	$231,905	$1,807,773	$2,488,549

*Subject to revision.
**Amount placed on order.

During the first nine months of 1952, purchases by domestic railroads of all types of materials, including commitments for equipment, called for expenditure of $1,807,773,000, compared with $2,488,549,000 of purchases in the comparable period of 1951.

Commitments to purchase equipment during the first nine months of the current year totaled $423,303,000, compared with commitments of $818,621,000 in the same period last year. Purchases during 1952 in all other categories, excluding only crossties, continued to lag substantially behind those of 1951. As shown in an accompanying table, crosstie purchases during the first nine months of this year increased to $83,103,000, compared with $69,717,000 in the same 1951 period.

SEPTEMBER* PURCHASES OF MANUFACTURED GOODS (EXCL. EQUIP. & FUEL)

Sept. '52 Compared to Other Septs. (000)

Year	Amt.	% Change
1946	$ 95,861	+ 16
1947	96,102	+ 15
1948	115,892	— 4
1949	73,661	+ 51
1950	96,046	+ 16
1951	118,705	— 7
1952	110,951	

Sept. '52 Compared to Other Months '52 (000)

Month	Amt.	% Change
Jan.	$118,665	— 7
Feb.	112,532	— 1
Mar.	122,622	— 10
Apr.	121,686	— 9
May	116,615	— 5
June	106,108	+ 5
July	93,211	+ 19
Aug.	98,001	+ 13
Sept.	110,951	

Nine Months Totals '52 And Other Years (000)

Year	Amt.	% Change
1946	$ 729,892	+ 37
1947	912,022	+ 10
1948	991,910	+ 1
1949	890,133	+ 12
1950	799,616	+ 25
1951	1,204,317	— 17
1952	1,000,391	

SEPTEMBER* PURCHASES OF RAIL

Sept. '52 Compared to Other Septs. (000)

Year	Amt.	% Change
1946	$7,220	+ 37
1947	7,121	+ 39
1948	9,383	+ 5
1949	8,136	+ 21
1950	8,282	+ 19
1951	8,000	+ 23
1952	9,875	

Sept. '52 Compared to Other Months '52 (000)

Month	Amt.	% Change
Jan.	$8,230	+ 20
Feb.	7,279	+ 36
Mar.	8,058	+ 23
Apr.	7,242	+ 36
May	6,817	+ 45
June	3,720	+165
July	567	+1641
Aug.	1,881	+425
Sept.	9,875	

Nine Months Totals '52 And Other Years (000)

Year	Amt.	% Change
1946	$43,720	+ 23
1947	64,429	— 17
1948	70,787	— 24
1949	86,715	— 38
1950	74,934	— 28
1951	77,592	— 31
1952	53,669	

SEPTEMBER* PURCHASES OF CROSSTIES

Sept. '52 Compared to Other Septs. (000)

Year	Amt.	% Change
1946	$7,608	+ 26
1947	7,313	+ 31
1948	9,093	+ 6
1949	7,296	+ 32
1950	4,190	+129
1951	9,305	+ 3
1952	9,596	

Sept. '52 Compared to Other Months '52 (000)

Month	Amt.	% Change
Jan.	$ 8,479	+ 13
Feb.	7,995	+ 20
Mar.	10,410	— 8
Apr.	9,684	— 1
May	9,928	— 3
June	8,960	+ 7
July	9,391	+ 2
Aug.	8,660	+ 11
Sept.	9,596	

Nine Months Totals '52 And Other Years (000)

Year	Amt.	% Change
1946	$66,068	+ 26
1947	73,705	+ 13
1948	61,080	+ 36
1949	68,021	+ 22
1950	40,573	+105
1951	69,717	+ 19
1952	83,103	

SEPTEMBER* PURCHASES OF OTHER MATERIAL

Sept. '52 Compared to Other Septs. (000)

Year	Amt.	% Change
1946	$ 81,033	+ 13
1947	81,668	+ 12
1948	97,416	— 6
1949	58,229	+ 43
1950	83,574	+ 9
1951	101,400	— 10
1952	91,480	

Sept. '52 Compared to Other Months '52 (000)

Month	Amt.	% Change
Jan.	$101,956	— 10
Feb.	97,258	— 6
Mar.	104,154	— 12
Apr.	104,760	— 13
May	99,870	— 8
June	93,428	— 2
July	83,253	+ 10
Aug.	87,460	+ 5
Sept.	91,480	

Nine Months Totals '52 And Other Years (000)

Year	Amt.	% Change
1946	$ 620,104	+ 39
1947	773,888	+ 12
1948	860,043	——
1949	735,397	+ 17
1950	684,109	+ 26
1951	1,057,008	— 18
1952	863,619	

*Subject to revision.

NINE MONTHS' PURCHASES $1,808,000,000—(Cont.)

SEPTEMBER* PURCHASES OF FUEL

Sept. '52 Compared to Other Septs. (000)			Sept. '52 Compared to Other Months '52 (000)			Nine Months Totals '52 And Other Years (000)		
Year	Amt.	% Change	Month	Amt.	% Change	Year	Amt.	% Change
1946	$51,148	— 17	Jan.	$52,837	— 20	1946	$405,916	— 5
1947	56,172	— 24	Feb.	48,917	— 13	1947	492,017	— 22
1948	69,743	— 39	Mar.	50,760	— 16	1948	626,317	— 39
1949	34,848	+ 22	Apr.	43,313	— 2	1949	442,295	— 13
1950	51,382	— 17	May	38,185	+ 11	1950	436,168	— 12
1951	45,004	— 6	June	38,663	+ 10	1951	465,611	— 18
1952	42,515		July	33,421	+ 27	1952	384,079	
			Aug.	35,468	+ 20			
			Sept.	42,515				

SEPTEMBER* TOTAL PURCHASES (EXCL. EQUIP.)

Sept. '52 Compared to Other Septs. (000)			Sept. '52 Compared to Other Months '52 (000)			Nine Months Totals '52 And Other Years (000)		
Year	Amt.	% Change	Month	Amt.	% Change	Year	Amt.	% Change
1946	$147,009	+ 4	Jan.	$171,502	— 11	1946	$1,135,808	+ 22
1947	152,274	+ 1	Feb.	161,449	— 5	1947	1,404,039	— 1
1948	185,635	— 17	Mar.	173,382	— 11	1948	1,618,227	— 14
1949	108,509	+ 41	Apr.	164,999	— 7	1949	1,332,428	+ 4
1950	147,428	+ 4	May	154,800	— 1	1950	1,235,784	+ 12
1951	163,709	— 6	June	144,771	+ 6	1951	1,669,928	— 17
1952	153,466		July	126,632	+ 21	1952	1,384,470	
			Aug.	133,469	+ 15			
			Sept.	153,466				

SEPTEMBER* INVENTORIES OF RAIL

Sept. '52 Compared to Other Septs. (000)			Sept. '52 Compared to Other Months '52 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
1946	$25,192	+ 23	Jan. 1	$41,981	— 26
1947	29,766	+ 4	Feb.	46,153	— 33
1948	32,212	— 3	Mar.	48,289	— 36
1949	39,057	— 20	Apr.	48,027	— 35
1950	37,452	— 17	May	45,234	— 31
1951	41,226	— 25	June	43,456	— 28
1952	31,085		July	40,132	— 23
			Aug.	34,328	— 9
			Sept.	31,085	

SEPTEMBER* INVENTORIES OF SCRAP

Sept. '52 Compared to Other Septs. (000)			Sept. '52 Compared to Other Months '52 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
1946	$11,546	+ 62	Jan. 1	$22,374	— 16
1947	9,978	+ 88	Feb.	20,099	— 7
1948	15,927	+ 18	Mar.	19,332	— 3
1949	16,241	+ 15	Apr.	19,348	— 3
1950	13,538	+ 38	May	18,652	+ 1
1951	17,040	+ 10	June	18,329	+ 2
1952	18,746		July	18,531	+ 1
			Aug.	19,286	— 3
			Sept.	18,746	

SEPTEMBER* INVENTORIES OF CROSSTIES

Sept. '52 Compared to Other Septs. (000)			Sept. '52 Compared to Other Months '52 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
1946	$74,454	+ 51	Jan. 1	$104,090	+ 8
1947	83,771	+ 34	Feb.	104,057	+ 8
1948	78,309	+ 43	Mar.	108,124	+ 4
1949	92,126	+ 22	Apr.	115,100	— 2
1950	83,869	+ 34	May	113,417	— 1
1951	88,840	+ 26	June	111,967	—
1952	112,288		July	111,228	+ 1
			Aug.	113,237	— 1
			Sept.	112,288	

SEPTEMBER* INVENTORIES OF FUEL

Sept. '52 Compared to Other Septs. (000)			Sept. '52 Compared to Other Months '52 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
1946	$51,944	+ 2	Jan. 1	$57,842	— 8
1947	63,026	— 16	Feb.	57,957	— 8
1948	91,850	— 42	Mar.	59,540	— 11
1949	71,341	— 26	Apr.	60,435	— 12
1950	51,429	+ 3	May	63,492	— 16
1951	61,269	— 13	June	58,531	— 9
1952	53,126		July	59,130	— 10
			Aug.	56,010	— 5
			Sept.	53,126	

SEPTEMBER* INVENTORIES OF OTHER MATERIAL

Sept. '52 Compared to Other Septs. (000)			Sept. '52 Compared to Other Months '52 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
1946	$464,973	+ 43	Jan. 1	$683,203	— 3
1947	555,498	+ 20	Feb.	695,555	— 5
1948	611,861	+ 9	Mar.	695,614	— 5
1949	595,665	+ 11	Apr.	693,504	— 4
1950	515,005	+ 29	May	694,178	— 4
1951	703,244	— 6	June	688,278	— 4
1952	663,988		July	675,832	— 2
			Aug.	669,279	— 1
			Sept.	663,988	

SEPTEMBER* TOTAL INVENTORIES†

Sept. '52 Compared to Other Septs. (000)			Sept. '52 Compared to Other Months '52 (000)		
Year	Amt.	% Change	Month	Amt.	% Change
1946	$628,109	+ 29	Jan. 1	$909,490	— 3
1947	742,039	+ 18	Feb.	923,821	— 5
1948	830,159	+ 6	Mar.	930,899	— 6
1949	814,430	+ 8	Apr.	936,414	— 6
1950	701,293	+ 25	May	934,973	— 6
1951	911,619	— 4	June	920,561	— 4
1952	879,233		July	904,853	— 3
			Aug.	892,140	— 1
			Sept.	879,233	

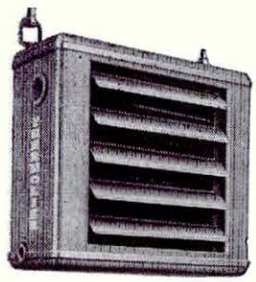
*Subject to revision.
†All total inventory figures taken from I.C.C. statement M-125 for the month indicated.

THERMOLIER UNIT HEATERS

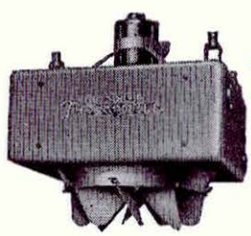
The condensed table below is a quick guide to the selection of the correct Thermolier for specific conditions. The capacities, when motors are operating at normal speeds, are based on Standard Basis of Rating: 2 lb. steam pressure and 60° F entering air temperature. Grinnell Thermoliers are tested and they are rated in strict accordance with rules of the Industrial Unit Heaters Association.

All Thermoliers can be operated at working steam pressures up to 125 psi and steam temp. up to 406° F.

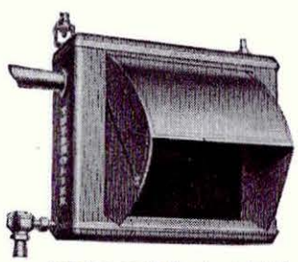
A MODEL AND SIZE FOR EVERY PURPOSE



horizontal delivery



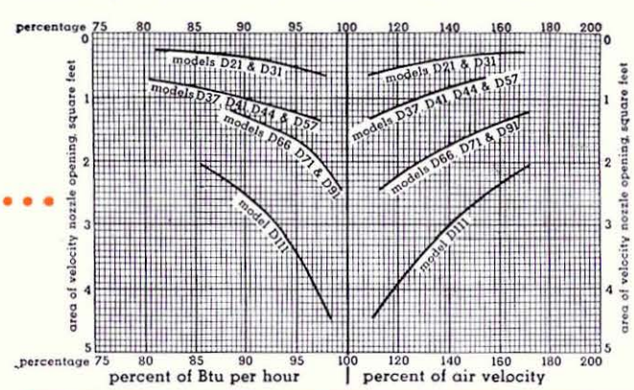
vertical delivery



velocity nozzle (horizontal delivery)

model	total heat delivered, Btu per hr	sq ft edr (nominal)	air velocity at exit, louvers open, lin. ft. per min.
horizontal delivery			
D21	35,600	148	786
D31	48,700	203	851
D37	62,200	259	753
D41	71,000	295	901
D44	84,100	350	887
D57	101,300	422	1016
D66	128,700	536	779
D71	151,700	632	977
D91	196,000	817	985
D111	275,300	1147	1048
vertical delivery			
VA1042	50,800	212	1399
VA1045	73,600	307	1287
VA1065	109,400	456	1354
VA1075	145,600	607	1231
VA1101	185,000	770	1495
VA1111	257,000	1071	1631

performance with velocity nozzle ▶


percentage 75 80 85 90 95 100 120 140 160 180 200
area of velocity nozzle opening, square feet
models D21 & D31
models D37, D41, D44 & D57
models D66, D71 & D91
model D111
percent of Btu per hour
percent of air velocity

GRINNELL
THERMOLIER UNIT HEATERS

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industrial supplies • Grinnell automatic sprinkler fire protection systems • Amco air conditioning systems

D-C FIELD WELDING

RUN A-C POWER TOOLS

TAKE IT ANYWHERE

Look what you can do with the New Westinghouse Engine-Driven D-C Welder

Here is a lightweight, 200-ampere, gas engine-driven welder with up to 3-kw stand-by power—all in the same unit. By simply plugging into convenient receptacles on the a-c power panel, the operator may obtain power for drills, grinders, pumps, lights and other electrical equipment.

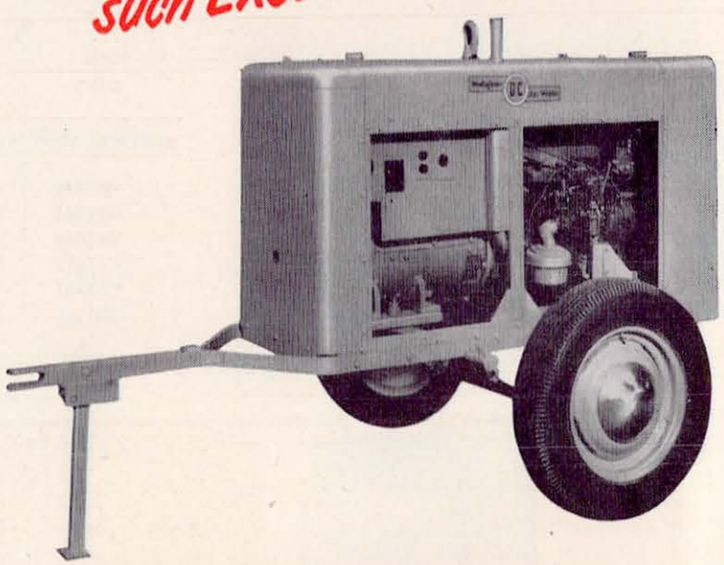
LIGHT—The auxiliary generator power in this machine is gained at no penalty in weight. The 1,150 pounds represent the lightest possible engine-driven welder with stand-by power that you can buy today. The welder is rated at 200 amperes, full 60-percent duty cycle, NEMA rated, with a maximum of 250 amperes.

COMPACT—This self-contained unit is only 39½ inches from the base plane to the top of the lifting eye. Its over-all length is 62⅝ inches. The welding generator is self-excited and close coupled to the driving engine.

VERSATILE—This welder is valuable in construction and maintenance operations on gas and petroleum pipelines, road-building projects, railroads—in fact at any remote site where there is no access to ordinary power supply. In disaster areas, this welder can power vital electrical equipment until normal service has been restored. The standard unit is skid mounted for truck transport or may be mounted on a high-speed, pneumatic-tired trailer.

For more information contact your nearest Westinghouse representative, or write to the Westinghouse Electric Corporation, Welding Division, P. O. Box 868, Pittsburgh 30, Penna. Ask for Booklet B-5455. J-21710

Only Westinghouse offers such EXCLUSIVE FEATURES!



YOU CAN BE SURE... IF IT'S

Westinghouse

WELDING EQUIPMENT

New Bolt Tightener

For tightening bolts periodically and for the year-round maintenance of loose bolts, the Woolery Machine Company, Minneapolis, Minn., has developed the Woolery Power Bolt Tightener.

This machine is said to be easy to operate and maintain, and to enable two men to do the work of eight equipped with hand wrenches, or tighten an average of 200 to 300 joints a day.

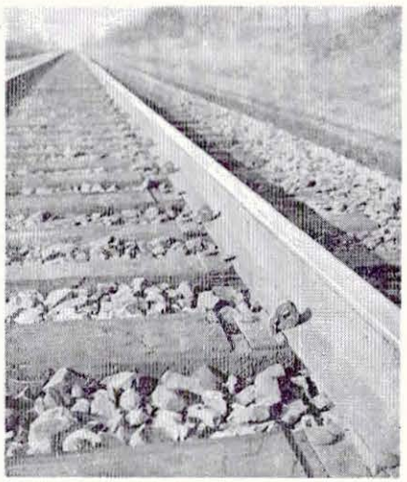
This machine has two socket wrenches, one for turning nuts on each side of the rail, which are driven by a Wisconsin air-cooled gasoline engine through a chain drive, a reverse gear box and a power torque clutch. The wrench chucks operate at one speed and their direction of rotation can be instantly reversed by means of a lever. An automatic torque release lever engages or disengages the clutch to insure uniform tightness to all bolts. While automatic in action, this feature is easily adjusted to the desired tension.

Both the chuck-reversing lever and the torque-release lever are conveniently located for the operator to control the action of the wrenches, and the sockets are easily changed by merely raising slide bars.

A pilot wheel at the rear of the machine is adjustable for the different rail sections so that the chucks are at the correct height for engaging the nuts without lifting of the machine. Set-off wheels are provided for quick track clearance.

Motorola "Handie Micro-Talkie"

Production of a hand-sized portable radio transmitter, suitable for reporting car numbers and markings direct to a yard office receiving unit, has been announced by Motorola, Inc., Chicago. Designed to operate on the 152-174 mc. frequency band and with a tested optimum range of five miles, the unit weighs only 1 lb. 3 oz. Dry batteries, microphone and transmitter are all contained in the single, seam-welded case which measures only 7⅜ in. by 2½ in. by 1¾ in. The rigid, chrome-plated loop antenna doubles as a handle in the same manner as a regular lantern handle. To transmit a message it is only necessary to operate a "press to talk" button on the unit's side. In normal usage, battery life varies from one work week for "A" batteries to two and one half work weeks for the "B" batteries.



Torque Rail Anchor

A rail anchor which is interchangeable on all rail sections where tie plates are used, has been placed on the market by the Rails Company, New Haven, Conn. This appliance, the Torque rail anchor, is a two-piece device, and consists of a cam-like piece and a spring. The cam, which is a heat-treated malleable-iron casting, has a round shaft, hollowed by a ⅝-in. square opening, and cam-shaped rims having a number of flat contact surfaces for engaging the rail base. The spring is 19/32 in. by 7/16 in. in section and is made of heat-treated spring steel shaped somewhat like the figure 3, with a short hook at one end and a partial loop at the other.

This anchor makes use of the rail-spike holes of tie plates and the prebored holes in the ties, and can be applied on the inside, the outside, or both sides of the rail. It is said to be easily applied by using a spike maul and any other track tool having a square section, such as a pick, a square tie-plug punch, or a bent ⅝-in. square bar. The cam is placed on the rail base with its direction arrow (cast on the outer faces of the rims) pointing toward the rail web. The short hook end of the spring is inserted into the hole of the tie plate and the other end is hooked over the cam shaft. Using a spike maul, the spring is driven into the tie-plate hole until the short hook at the end snaps over to engage the underside of the tie plate. Then, using a pick or other suitable tool, the cam is rotated to cause the cam shaft to lift from the rail and to be forced tightly up against the spring. The cam is rotated from one contact surface to the next until proper spring tension (determined by means of a template supplied by the manufacturer) is obtained.

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Supply ALL Electric Energy for MILWAUKEE'S

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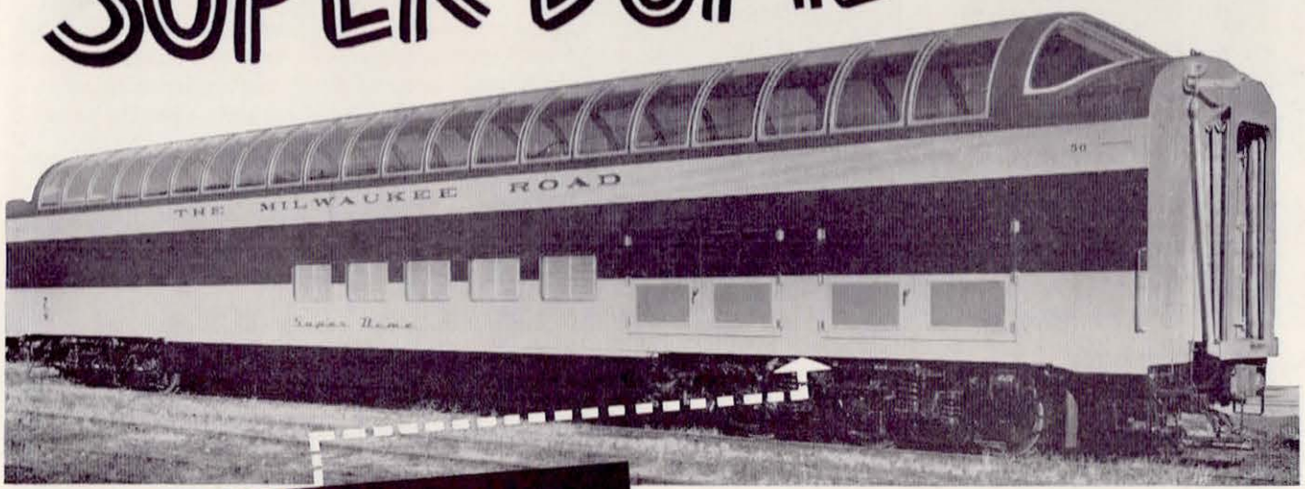

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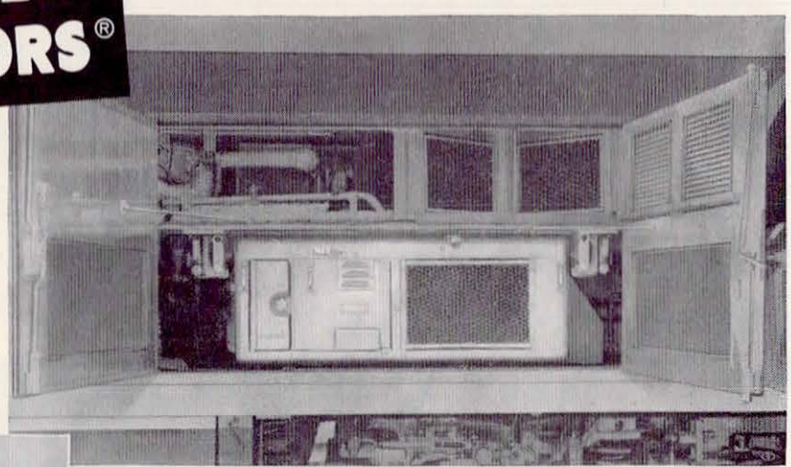
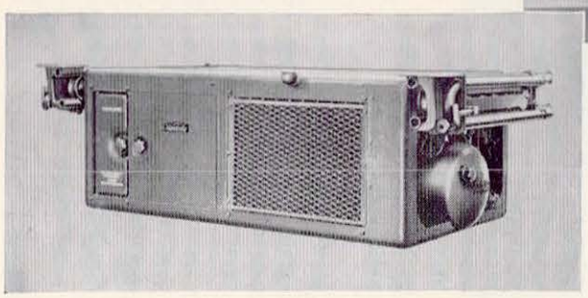


Open compartment doors show one of the twin Enginators in operating position.

★

Waukesha 27 KW DC Enginator unit with mounting tracks.



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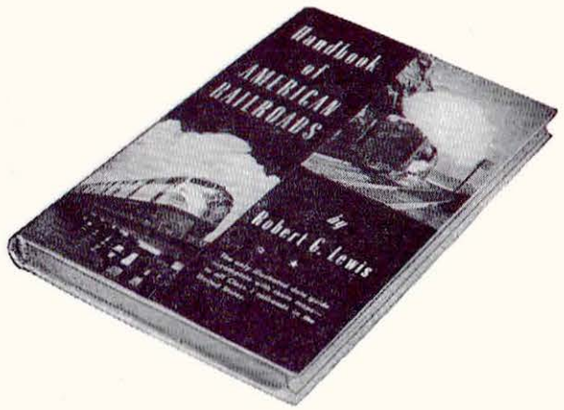

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Benchmarks and Yardsticks

AN ENGLISHMAN named Michael Roberts died a few years ago, leaving a partially completed manuscript of a book entitled "The Estate of Man"*—which was published because, although unfinished, it contained such challenging ideas.

The questions Roberts looked into and reported upon were: "What are our total available resources in terms of material, population and skill; to what extent are these resources likely to increase or decrease in the near future; what limits are there to the natural productivity of the soil; what limits are there to the adaptability of man?"

Much important and disquieting information is offered in answer to these questions, and we are advised to ask ourselves, about any economic activity: "What are you doing this *instead of?*"—because if we use labor or irreplaceable resources for one thing, we cannot possibly use them for something else—and are the things we are using them for the most important?

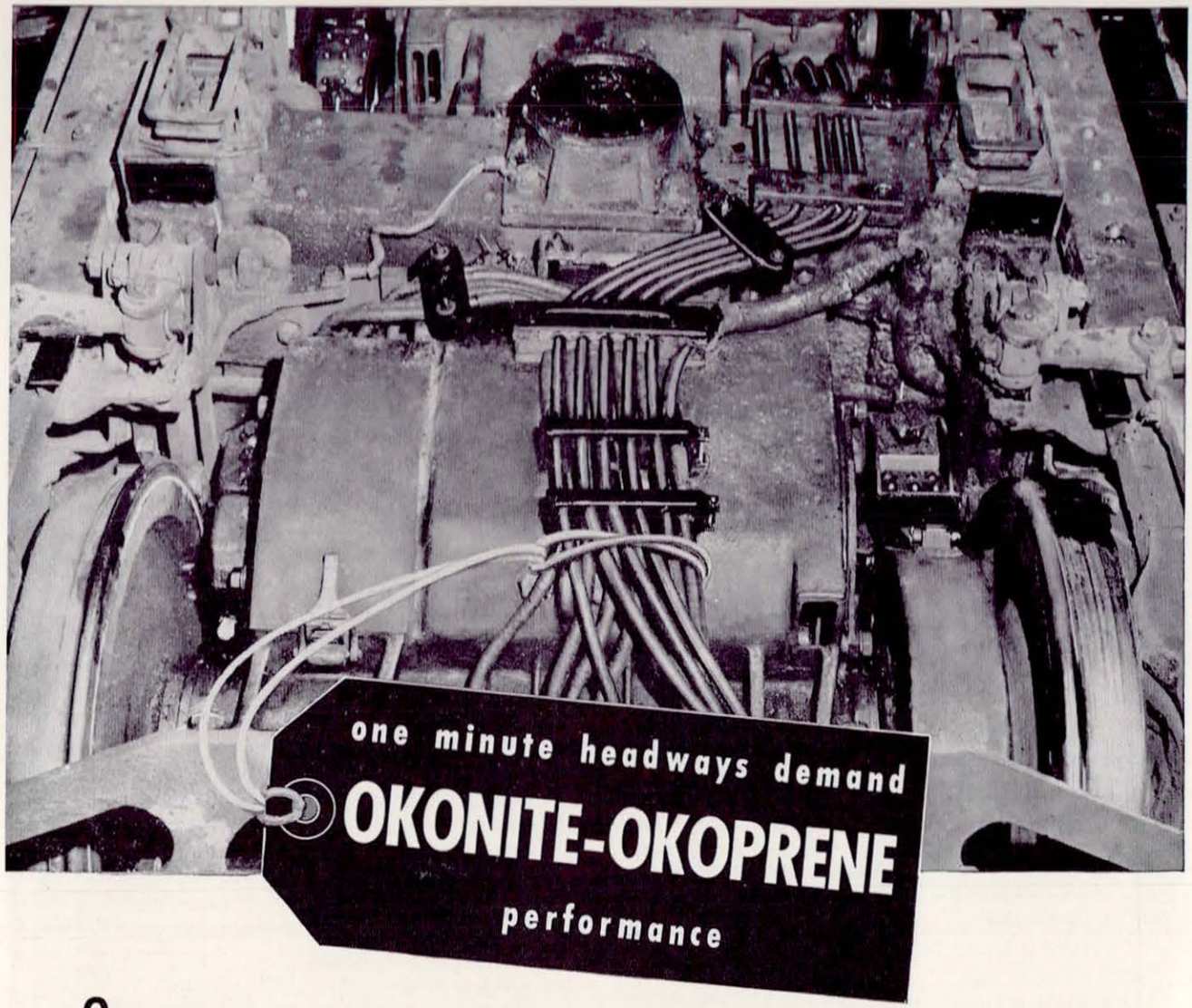
Of many of Roberts' arresting observations, none is more so than his discussion of the availability and utilization of human resources, i.e., people. From 1900 to 1940, he notes, through the effort and ingenuity of a few hundred engineers, the efficiency of the steam turbine was doubled. These engineers contributed more to human well-being than would the annual labors of hundreds of thousands of coal-miners. Roberts concludes that, if people want to work less and live better then they'd better take care to nourish and encourage talented people in the occupations that produce the means to increase living standards.

Intelligence is needed, and this quality is inborn. Education makes available a man's native brain-power and can strengthen his moral qualities, but it doesn't create intellect; "the groups which produce the dullest children are multiplying rapidly."

Roberts believed that his country was wasting a lot of scarce human talent on relatively unproductive tasks—for example, much or all of the bureaucratic activity exerted in controlling industry and agriculture. Here, certainly, is something we might profitably look into as regards the transportation business on this side of the Atlantic. Even if it be granted that detailed regulation produces better results than untrammeled competition, certainly we should consider regulation's terrific consumption of the limited supply of brain-power.

Of all the things being done in the railroad business, what are they being done *instead of?* Are all resources, especially available brain-power, being efficiently discovered, and used to maximum advantage? J. G. L.

* Published by Faber & Faber, Russell Square, London, 15s.



One of the outstanding achievements in transportation history is the expert handling of big city rush hour crowds. Operating on one minute headways and even less, electrical railroads and subways perform daily miracles in helping the nation get to and from work on time.

Maintaining such schedules demands electrical equipment of utmost reliability. Okonite-Okoprene, for example, is widely used for power control and motor leads, as shown in the truck photo above.

Cables so located are subjected to constant vibration and abrasion, as well as continual exposure to oil, dirt, dust and moisture. Okonite-Okoprene combats such elements with its Okoprene protective covering, a tough neoprene compound which repels all such attacks.

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BETTER SERVICE FROM FEWER TRAINS

There never was a more appropriate time than now for pressing vigorously to get rid of red-ink passenger trains. The occasion, of course, arises from the strongly favorable report on this effort, recently approved by the National Association of Railroad and Utilities Commissioners (*Railway Age*, November 17, page 67, and November 24, page 39).

There are plenty of routes upon which passenger service is being operated profitably—and others where, probably, "border-line" operations could be turned into profitable ones, if thoroughly modern service were provided. But, just as one bad apple ruins a barrel of good ones, the hopeless "plugs" impoverish the whole passenger business—soaking up all the money which could otherwise be used to improve service where traffic and earnings would probably respond.

Time to Prove Good Intentions

Perhaps the most effective contribution the railroads could make toward getting authority for wholesale withdrawal of losing services would be to give earnest of their intentions, by eliminating poorly patronized services which they can curtail without being required to obtain regulatory permission—for example, the elimination of parallel service on competing routes. Action toward this end was recommended in a recent address to the New York Railroad Club by J. P. Newell, vice-president, operating, of the Pennsylvania.

The fact may as well be faced, however, that the railroad which would be the logical one to withdraw from such competition is often reluctant to do so, for fear of losing prestige. Whether such fear is well founded or not must be a matter of conjecture, but its reality as a serious deterrent to economy cannot be doubted. The rewards for positive action are so tangible and imperative, though, that the conjectural advantages of the prestige retained by continuing a service whose anemia is evident, might find it hard to stand up under close scrutiny.

Over a year ago in this space it was suggested that a good many places could be found where it would be profitable to eliminate or pool duplicate sleeping car services. A specific instance was cited of sleeping car service between a Midwestern metropolis and a city of less than 100,000 population—where three competing railroads have provided overnight sleepers with substantially no change during the past 30 years. The same three railroads operated standard section and room cars on the same three trains on approximately the same schedules in 1921 as at present.

These sleeping car runs continued unchanged throughout a period when virtually all other circumstances affecting passenger transportation were revolutionized. In 1921 there were no buses or air lines at all, but such services are everywhere plentiful today. During the intervening period the ownership of private automobiles more than quadrupled, and where poor roads formerly made long-distance intercity travel impracticable, now such transportation has become everywhere predominant. It seems hardly conceivable that the requirements for sleeping car services could remain so constant in this area through three decades, while such a revolutionary change in passenger transportation was going on. Some means of pooling the service, so that one railroad would handle it all, ought to benefit all three railroads, with no inconvenience whatever to the traveling public.

These sleeping car runs were cited as only one example of which there are many more. A parallel and more important instance is to be found where one or more roads are competing for nearly identical traffic with complete train services. There are many runs between important cities where misgivings about loss of prestige appear to be the only possible justification for the continuance of competing service by the line with the lesser travel volume. Retention of two or more such services at approximately the same departing and arriving times minimizes the opportunities for all participating roads to make their service healthy and profitable, affording improvements which would attract greater patronage.

As far as passenger service is concerned, competition between railroads is inconsequential, when compared to the overwhelming rivalry encountered from other forms

of transportation. The more the railroads continue competing with each other, the weaker they are likely to be in meeting their really important competition from "outside"; and the prestige derived from a noticeably poorly patronized service is an advantage which may easily be overvalued. Because of the forthright action of the utility commissioners, the time has become unprecedently propitious for the large-scale elimination of hopelessly unprofitable services—and the highly desirable corollary to that action, viz., improving the remaining services to a point where they will attract new traffic and become, or continue to be, profitable.

The Setting Is Right

Isn't the setting just right, now, for competing lines to form joint committees or otherwise proceed with negotiations to make firm plans for eliminating or pooling—or, at least, "staggering" the schedules of—practically all parallel passenger services?

No true railroader can avoid painful nostalgia at the withdrawal from the scene of some formerly famous and once well patronized trains—or, for that matter, at seeing some of the historic "plugs" and "accommodations" vanish. It's an affection like that which many of us have felt for the steam locomotive. But railroading is a business, and to stay as such it has to stick to giving the public what it wants, and not what it won't buy in profitable quantity. Traditional patterns of service can be retained only if the public is willing to assume the cost—the railroads can't afford to.

THE DEAN STEPS DOWN

The announcement was made at the Association of American Railroads member road meeting on November 21 that Robert V. Fletcher, special counsel, will retire at the end of the calendar year. Judge Fletcher has been the wise counselor to several generations of railroad men, and to many others in and around the railroad industry, including both the editor of this paper and his predecessor. The present writer can think of no individual in the railroad business to whom he has been more deeply indebted over so long a period for the kind of guidance that only a deeply sagacious and devoted man can give. There must be scores of people around the railroads who would gladly offer similar testimony.

The Judge's career is too widely known to require recitation here. A distinguished railroad lawyer, he was a charter member of the A.A.R.'s official family and served briefly as its head. He found the time and energy during the war to organize and head the Railroad Committee for the Study of Transportation—the most intensive and comprehensive program of self-examination the railroad industry has ever carried out. And none of his regular duties suffered by reason of the wide variety of his "extra-curricular" activities.

It's a little hard to imagine such a busy and eloquent man in retirement—which, quite likely, will be only nominal. Anyhow, we wish him happiness in that status—an opinion for which we can claim no originality and which we are happy to share with a great host of people.

RESEARCH OR MANPOWER TO REDUCE HOT BOXES?

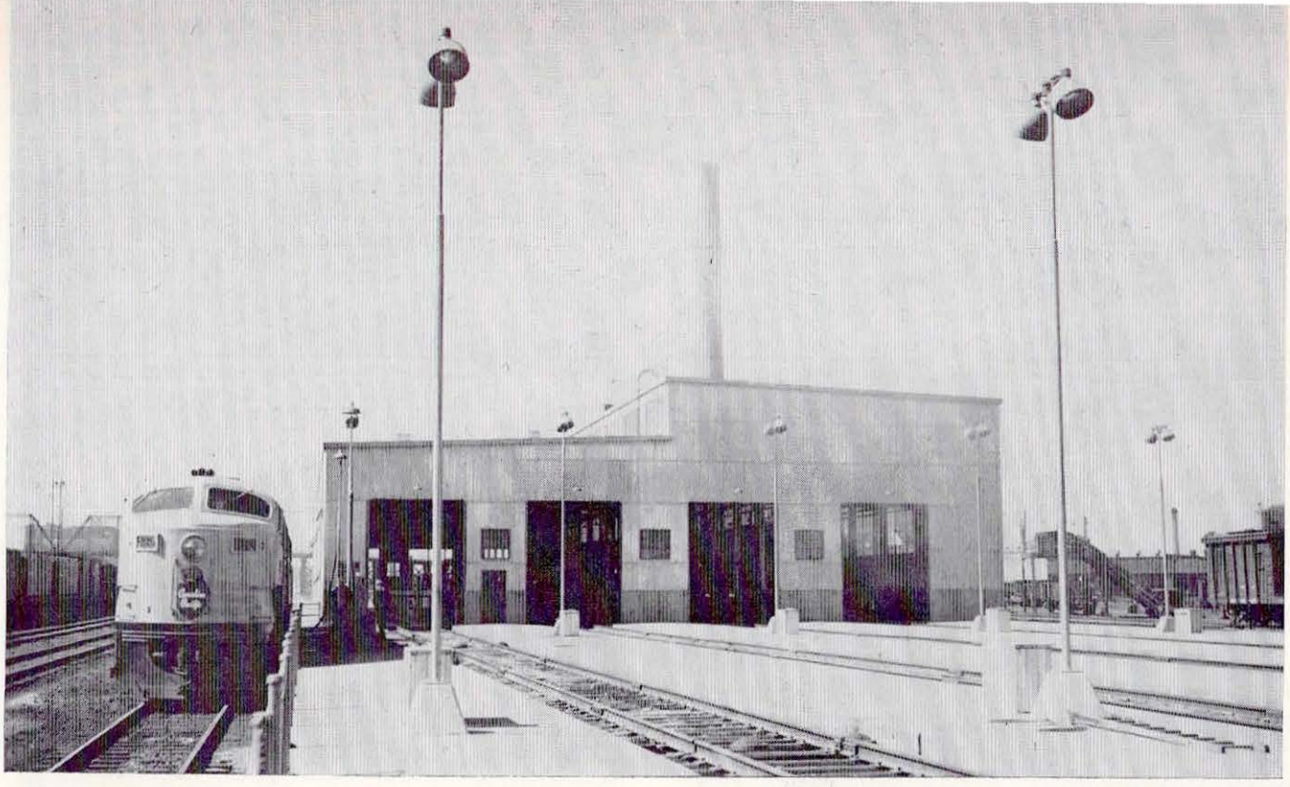
It has been asserted on more than one occasion that the hot box situation can be improved substantially by assigning enough men and allowing enough time for inspecting and servicing freight-car journals at terminals. No doubt this is true. The question is how many is "enough"? The big decision to arrive at is whether it would be better to solve the hot box problem in this way or by research to develop improvements.

It is interesting to make a rough calculation of what it would cost to try to solve the hot box problem by additional manpower, and to speculate on whether this money could not be spent more effectively on research.

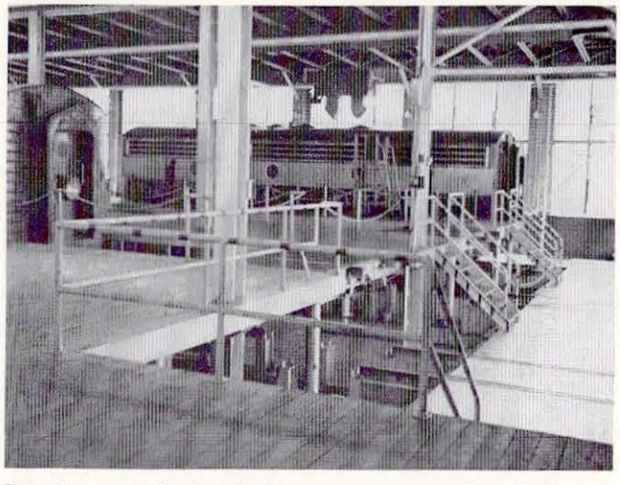
As a starting point, let us see how much we would get for our money if we spent an additional million dollars a year for more personnel to get closer inspection and improved servicing. This would amount to $20,000 per week, or enough to hire about 250 more men. Dividing the 250 men among the Class I roads alone would furnish, on the average, roughly two men per railroad—not two men per shift per yard, but a total of two men each working one of three daily shifts five days out of seven at one terminal.

Certainly, a million dollars a year spent on research ought to do more good than the virtually insignificant addition to the forces for servicing and inspecting journals which the same million would provide. While the sum is large in itself, it is only a pittance when divided among all the contributing roads—particularly when each road's share is compared with the cost of living with the hot box problem. Even a million dollars a year amounts to only $7,000 for the average Class I road.

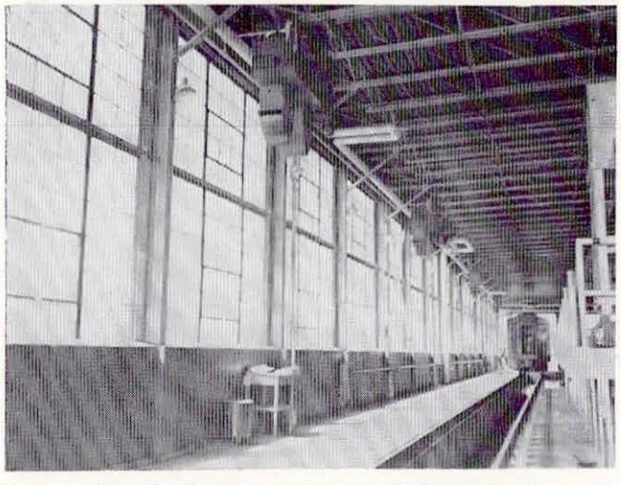
As an interim measure—while research is finding the answer—more intensive inspection may, road by road, be more economical than the consequences of letting even a few failures occur out on the line. But intensified inspection is a palliative, not an attack on the cause. Research, indeed, may find a way to complete inspection and servicing in less time. It might even result in a reduction, rather than an increase, in the overall cost of inspecting, servicing and maintaining journal bearings.



CPR's new diesel shop at Alyth yard in Calgary, Alta., will accommodate four three-unit diesel locomotives at one time.



The three southerly platforms are connected at their west ends by movable bridges.



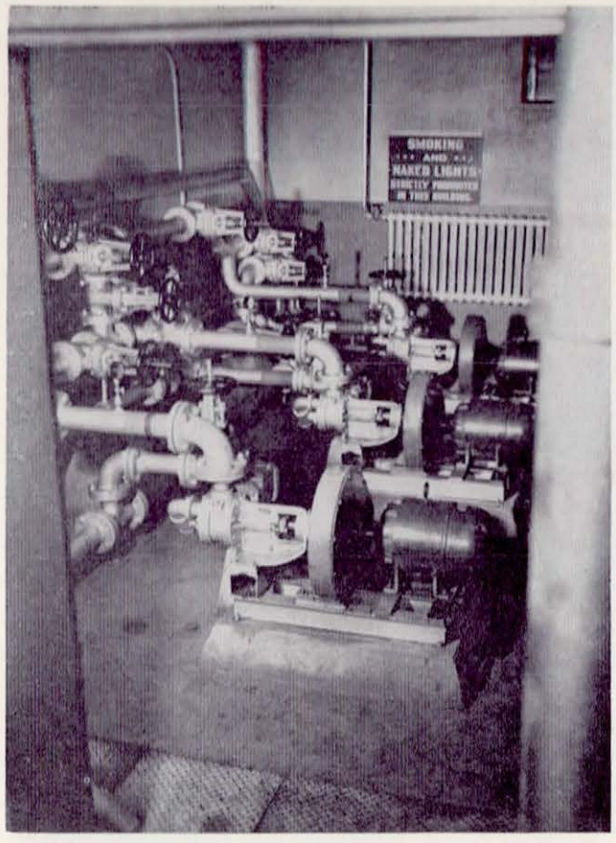
Heat is forced through underground ducts to the track inspection pits.

More Diesel Power Begets

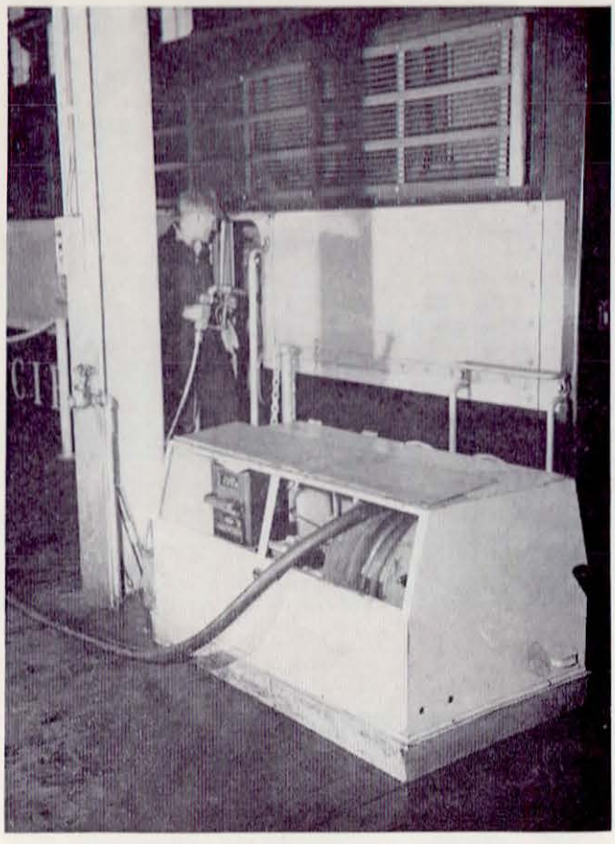
BIGGEST DIESEL SHOP IN CANADA

CPR builds new $1-million service facility at Alyth yard in Calgary, Alta., which is the first of its size in country

The Canadian Pacific has recently put a new diesel-servicing plant into operation at its Alyth yard in Calgary, Alta. This facility will handle the running repairs of diesel power that operates in mountain territory between Calgary and Revelstoke, B. C. At the beginning of the year on this line, the road had 28 diesel units in road freight service which, in three-unit combinations, hauled trains of 2,550 tons out of Calgary. Starting in the spring of 1952, diesel power was also placed in service for hauling passenger trains No. 1, coastbound, and No. 4 and No. 8, eastbound. By the end of the summer, the road had an all-diesel operation on this territory. With the new units that have been added to this line's power pool this year, the new shop at Calgary

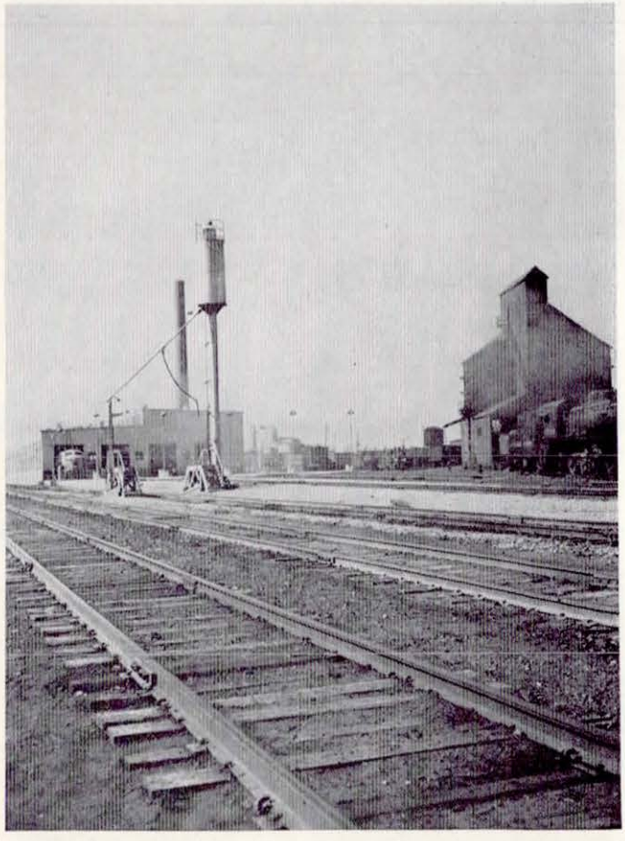


These three Viking rotary pumps handle the movement of dirty crankcase oil to two 4,000-gal. tanks.

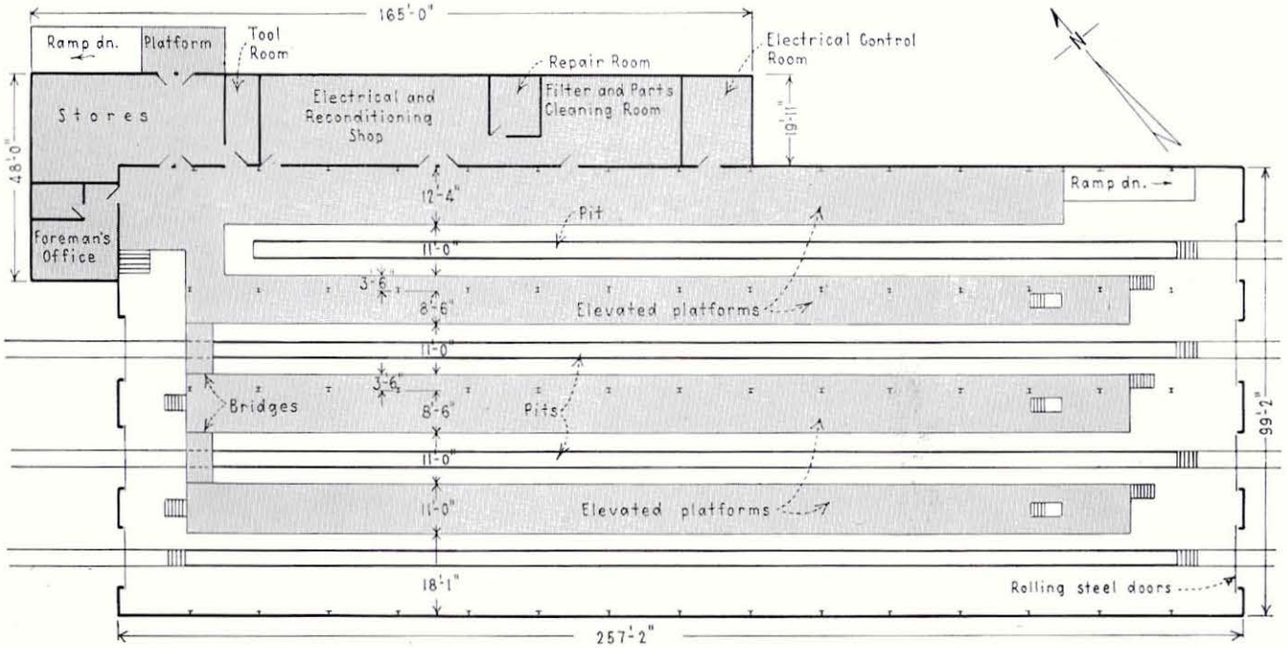


Clean lubricating oil is pumped from storage tanks to these hose-reel platform dispensers.

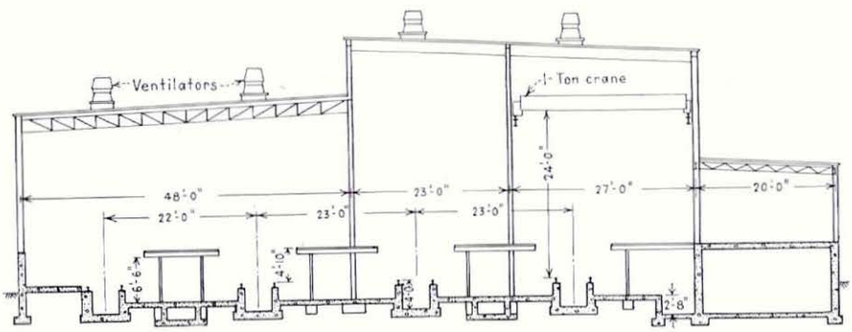
Part of the running maintenance of diesels is the reconditioning of cylinder-head valves, which this workman is doing on a Black & Decker machine.



A four-track concrete servicing platform was constructed just outside of the new diesel shop for supplying water, fuel and sand to the units.



Floor plan of the new diesel shop at Calgary. The shaded area represents the higher floor level.



Sectional view of the shop showing the various working levels. The leanto addition at the right has offices and workshops at the platform level and rooms at the lower level for stores, a testing laboratory and employees' welfare facilities.

will maintain and service a total of 60 road-diesel units and the 8 diesel switchers used at that point.

The new diesel-service plant at Alyth yard, built at a cost of more than $1 million, is the first of its size to be built in Canada. The design and construction of this plant had the benefit of the CPR's experience with the shops at Chapleau, Ont., and the one at its Cote St. Luc yard at Montreal. Lessons learned at Alyth Yard shop also will be applied to any future plant constructed on the Crow's Nest line at Nelson, B. C., where the road's dieselization program is now being concentrated.

Alyth Shop Layout

The Alyth Yard diesel plant consists of a shop building, a fuel, water and sand servicing platform, and a 5,000-bbl. diesel-fuel oil storage tank. A leanto addition was constructed along the north side of the shop building for housing small workshops, stores and offices.

The shop building consists of a steel frame enclosed with asbestos-cement siding, and is constructed with one low bay and two high bays. In general, it follows the same design pattern as its counterparts in the United States, having a depressed-floor level, elevated working platforms, and inspection pits running the length of the tracks for accommodating three-unit diesel locomotives, 208 ft. long. The pits are of the open type with the running rails of the track supported on structural steel pedestals.

Offices and workshops of the leanto addition open onto the diesel shop at the raised platform level, while a testing laboratory and employees' welfare facilities are located at ground-floor level in the leanto. A dispatch board, showing the diesel-unit inspections by round trips and at 5,000, 10,000, 30,000 and 60,000-mile intervals is mounted on a wall of the shop where it is readily available to all concerned.

Because the three southerly tracks serving the shop are through tracks, the island platforms separating these tracks are connected at their west ends by movable bridges. The bridges are lowered to track level for moving diesel units through the shop, and are raised for facilitating movement of personnel and shop equipment from one platform to another.

This shop also is equipped with an aridifier for drying the compressed air used in blowing out electrical equipment, and a dustproof room for the repair of precision parts, such as injectors. The crank-case laboratory is an interesting place and 40 samples a day are taken there and given tests for viscosity, precipitation, flash point and fuel dilution on the 160 gal. of lubrication oil that each crankcase holds.

Color illustrations courtesy Pullman-Standard Car Manufacturing Company

Milwaukee Gets First Full-Length Dome-Lounge Cars

Ten new cars, built by Pullman-Standard, embody original features of design, including a 68-seat dome section

The first of ten new dome-lounge cars, currently being delivered to the Milwaukee by the Pullman-Standard Car Manufacturing Company, are more than living up to advance billing as reported in *Railway Age* March 24. It is noteworthy how closely the cars follow in all major particulars the details laid down by engineers and designers about a year ago and culminating in pace-setting cars which contain many distinctive features, several of them now being tried for the first time in American railroad service.

The ten "Super-Dome" cars, providing strictly non-revenue lounge space of exceptional appeal, will be used

in regular service beginning January 1, 1953. One will be assigned to each of the six "Olympian Hiawatha" train sets in daily Chicago-Tacoma-Seattle service and one to each of the four daytime "Hiawatha" trains in Chicago-Twin Cities service. All of the cars will be placed next to diners; they will not displace the "Sky Top" lounge car for first-class passengers carried at the rear of each of these trains.

The determination of the Milwaukee management to provide a new attention-impelling and passenger-pleasing feature in "Hiawatha" trains is exemplified in the "Super-Dome" car. Three main objectives in the road's large investment are to build railway prestige in general, to get these particular cars talked about from coast to coast, and to provide a service which cannot be approached by any competitive transportation media.

The new "Super-Dome" car was designed by engineers and design specialists of the Pullman-Standard passenger-car engineering division, working in conjunction with officers of the railroad and representatives of companies supplying many special materials and devices used. The air-conditioned full-length dome section accommodates 68 passengers in rubber-cushioned seats generously spaced 3 ft. 5 in. on centers and made non-revolving, as the car is reversed at the end of each run. Beneath the dome is a dining and lounge section, seating 28, where beverages and light snacks are served from an all-electric stainless-steel kitchen.

Loudspeakers carry radio programs and announcements over the train public-address system. RCA equipment is utilized including a plate-type radio antenna which is placed on the depressed portion of the forward roof as there is not sufficient clearance for a conventional antenna above the roof center line.

Part of the lower level space over the trucks is used for air-conditioning equipment, air compressors, diesel Enginator units, and fuel and water tanks. The housing of this equipment is designed so the various units can be serviced regardless of weather conditions and whether or not the train is moving. This equipment renders each dome car mechanically independent of the rest of the train as to power for lighting and air conditioning.

Since this car is a new type of construction necessitating placement of a considerable amount of equipment above the floor line and with provision for a large number of passengers on the upper level, an investigation has been made of its stability on curves. Desirable roll characteristics are reported at maximum operating speeds and with ample margin of safety for over-speeds.

Lower lounge section showing color photo mural picture window on partition in the background.

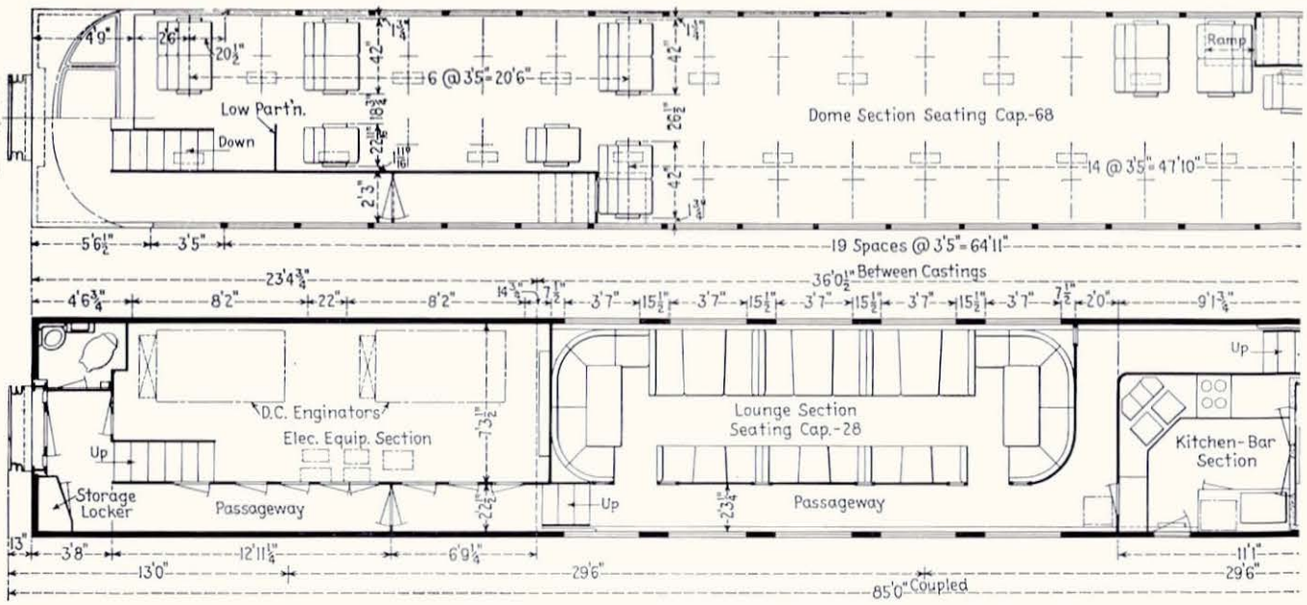
The extremely wide spacing of truck bolster springs and relatively high location of the lateral bolster restraint tend to give an unusually steady ride.

The new dome car is impressive looking and colorful. The eye-catching full-length dome, 15½ ft. high, harmonizes with the exterior color scheme which consists of traditional Milwaukee "harvest" orange and "royal" maroon with black underbody. The interior decorative treatment and lighting also merit special description. In the dome section, floor covering is rubber tile with appropriate inlaid design in the aisle, an authentic Indian motif being incorporated in the aisle strip. Stairways leading to the upper dome are covered with carpeting, featuring a broken-line pattern to match rubber flooring with which it comes in contact. Stairway railings are alumilited aluminum tubing with a modesty shield below the railing.

Copper-color dome-seat covering is supplied by Goodall in a pattern which also shows Indian influence and forms "M" for Milwaukee in a running design. Arm rests are covered with the same material and seat ends with Buffalo grain turquoise color, stain-proof Avtrim.

The dome ceiling is painted sky blue. The remainder of the dome section, including retainer frames for the curved glass windows and the dash at front and rear,

One of the Milwaukee "Super-Dome" cars with curved double-glazed high-visibility windows in the full-length dome.



Floor plan of new Milwaukee "Super-Dome" car—Dome level (above) and lounge level (below).

are painted sun tan. At either end of the car on the dash is an edge-lighted Lucite plaque, representing the running Indian, the Milwaukee trademark. Window cappings are laminated Formica with pearlescent finish.

Overhead lighting is Luminator incandescent type of a modern glass-block design in groups of three blocks to a fixture. The fixtures are in a staggered arrangement, avoiding a continuous effect. Some of the dome seats are equipped with aisle lights for visibility.

All dome seats, made by Heywood-Wakefield, are equipped with ash receptacles and adjustable foot rests. They are not only non-reversing but have fixed backs as it is not anticipated that many passengers will want to sleep in this car.

There are 21 rubber-mounted double-glazed curved sash, 3 ft. wide by 5 ft. high, in each car side. They are made by Adams & Westlake of ¼-in. Solex heat-resistant plate glass on the outside and ⅜-in. laminated Solex safety plate glass on the inside. In fact all glass, both utilitarian and decorative, in this car is safety glass as a precaution against personal injury.

Lower Level Arrangement

The lower-level lounge section with seating capacity of 28 is accessible from passageways laid out in staggered arrangement from either end of the car. The entire lounge room, including passageways leading to double-acting swing doors, is covered with Wilton-type carpeting, original in design and based on an Indian motif with green and antique gold coloring.

All furniture in this level is covered in Ashtabula top-grain leather in gold or green antique finish. Tables are covered with blisterproof realwood Formica. Table pedestals have a chrome satin finish and the bases of built-in furniture are made of stainless steel.

Walls of this entire area are painted surf green. The ceiling and the suspended ducts which house the air-conditioning and the continuous Luminator incandescent lighting are painted a sun tan. The Ajax venetian blinds and tapes are citron yellow, the operating part of the blinds having a satin finish.

Large pier panels in the room (eight in all) have safety golden plate glass mirrors with wheelcut designs of a thunder bird. The vertical pylons which form part of the passageway are of stainless steel with safety glass panels in an appropriate Indian motif, wheelcut design. Horizontal safety-glass panels form part of the passageway partition and are also made of an imitation sand-blast wheelcut design with appropriate Indian motif.

The glass mirrors are encased in extruded aluminum frames. Window cappings are processed Vicwood Formica in a blond wood effect to match the realwood prima vera Formica table tops. All heater pipe grills are stainless steel.

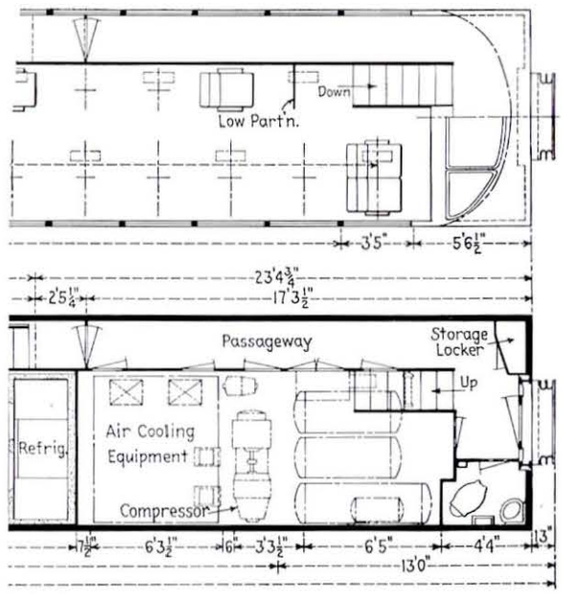
The partition at the rear end of the room is a lighted pictorial mural in full color, furnished and installed by Kaufman & Fabry, Chicago. This mural, with special Luminator lighting, has the appearance of a picture window frame without glass, the frame being painted the surf wall color.

At the forward end of the room is a stainless-steel kitchen-bar section with service opening, this section being of Pullman-Standard design and construction. The portion of wall adjacent to the opening is ornamented with a copper metal repousse in old form, again showing the running Indian Milwaukee trademark.

The new car is made of low-alloy high-tensile steel and embodies Pullman-Standard welded girder-type construction. The coupled length of the car is 85 ft. and dome roof height above rail 15½ ft., or 2 ft. more than conventional roof height. The car scale weight is 224,080 lb. including 14,400 lb. for the full passenger load and 9,080 lb. for lading such as fuel oil, water and crew.

By the judicious placement of heavy accessories, the car weight is almost equally divided, both crosswise of the car and fore and aft on the two trucks, a fact which greatly facilitates production of a smooth-riding truck design. These particular General Steel Castings trucks are six-wheel, all-coil spring, drop-equalizer type, equipped with Timken roller bearings, Unit-cylinder clasp brakes, Monroe vertical and Houde horizontal hydraulic shock absorbers, Budd Rolokron wheel-slide control and Westinghouse speed governor, among other devices. The combined weight of the two trucks is listed as 66,550 lb.

The car body is really constructed on three levels—



the normal entrance floor height 4 ft. 3 in. above rail, the depressed lounge-floor level 23 in. above rail, and the dome section floor level, 8 ft. 8 in. above rail. To carry static and dynamic load stresses satisfactorily through a structure of this kind presented many interesting structural problems. Each girder-type side is a structural section terminating at the side plate. Most important structural members are continuous the entire length of the car, including side plates, window headers, belt rails and side sills except portions at the lounge floor. In the usual construction, part of the roof also constitutes an effective section. Deflection had to be held to a minimum to protect the car-length expanse of glass in the dome.

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Extra strength is provided in the carlines between windows to tie the sides together. At the center of the car above the dome aisle is a longitudinal panel of roof sheet about 2 ft. 4 in. wide, extending between box-section purlines, which gives necessary rigidity to the roof structure.

A feature of the underframe is the steel platform underframe casting at each end, made by the General Steel Castings Corporation, which is used to distribute buffing and other loads to side sills of generous section which extend around the depressed center portion of the car.

Each of these underframe end castings is 24 ft. 1¾ in. long, weighs 8,850 lb., and is in all probability the largest casting of its type ever thus used under a passenger car. The casting includes in a single integral structure the platform, buffer beam, coupler carrier, buffing-device pocket, draft-gear pocket, center sill, double body bolster (required with six-wheel trucks), integral center plate and body side bearings, and cross beam with integral side-sill and side-girder connection pads. The cross beam is designed to transmit both static and buffing loads from center sill to car sides and vice versa, as there is no center sill through the depressed center portion of the car.

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Each of the two Waukesha diesel engines, rated at 60 hp., is of the six-cylinder liquid-cooled type with

High Spots of the "Super-Domes"

First full dome-car in service.
Largest total seating capacity, 96.
Average cost $320,000 per car.
Weighs 224,000 lb. fully loaded.
Boasts a 50-kw. diesel power plant.
Has 20-ton total air-cooling capacity.
Largest underframe end castings used.
No equipment carried under the car.
Dome windows largest curved units.
With Solex glass, no curtains in dome.
Most colorful decorative treatment.
R.C.A. plate-type radio antenna.
Solar discs aid automatic heat control.
New design easy-riding six-wheel trucks.

Principal Dimensions and Weights of Milwaukee Dome Cars

Length over platform, coupled, ft.	85
Length between truck centers, ft.	59
Width over side sills, ft.	10
Width, inside between posts, ft.-in.	9—6
Height, rail to top of roof (dome), ft.-in.	15—6
Height, rail to top of roof (conventional), ft.-in	13—6
Height, rail to top of floor, ft.-in.	4—3
Height, rail to top of low floor, in.	23
Height, rail to top of dome floor, ft.-in.	8—8
Truck wheel base, ft.	11
Wheel, diameter, in.	36½
Journal size, in.	6½ by 12
Scale weights, lb.:	
Car body	134,050
Trucks (two)	66,550
Lading	9,080
Passengers	14,400
Ready to run	224,080
Lading weight details, lb.:	
Fuel oil	2,250
AC Condenser water	1,586
Air-pressure water	2,829
Lockers and refrigerators	2,065
Crew	350
Total	9,080
Passengers weight details, lb.:	
68 seats in dome	10,200
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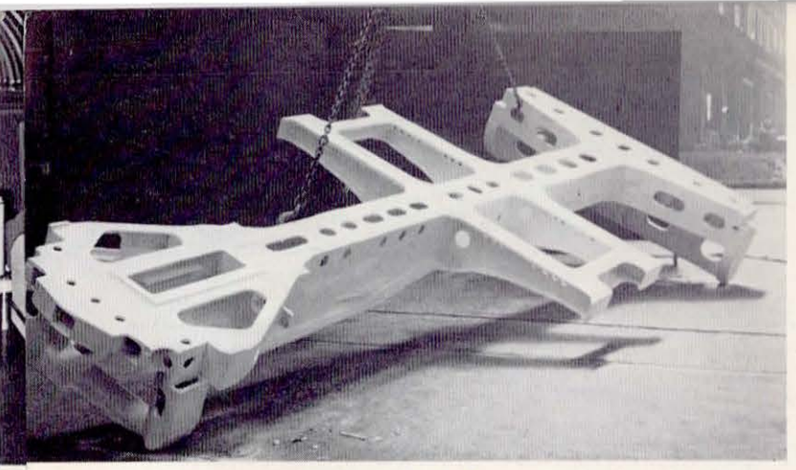

The car underframe includes at each end one of these Commonwealth one-piece cast steel platforms.

Vapor Solar Discs which aid in accurate automatic control of temperatures in the dome section.

Partial List of Materials and Equipment on 10 Milwaukee Full-Length Dome-Lounge Cars

Trucks; end underframe castings	General Steel Castings Corp., Granite City, Ill.
All-coil springs	Railway Steel Spring Div., American Locomotive Co., New York.
Wheels	Standard Steel Works Div., Baldwin-Lima-Hamilton Corp., Burnham, Pa.
Roller Bearings	Timken Roller Bearing Co., Canton, Ohio.
Shock absorbers:	
Vertical	Monroe Auto Equipment Co., Monroe, Mich.
Horizontal	Houdaille-Hershey Corp., Houde Engineering Div., Buffalo, N. Y.
Insulating pads, truck	Fabreeka Products Co., Boston. United States Rubber Co., New York.
Wheel-slide control, Rolokron	Budd Co., Philadelphia.
Brake pin collars and cotters	Elastic Stop-Nut Corp. of America, Union, N.J.
Center-plate liners	Gatke Corp., Chicago
Air brakes—electro-pneumatic, and water-raising mechanism	Westinghouse Air Brake Co., Wilmerding, Pa.
Brake shoes	American Brake Shoe Co., New York.
Clasp brakes, Unit-cylinder	American Steel Foundries, Chicago.
Hand brakes	National Brake Co., New York.
Couplers, Tightlock	National Malleable & Steel Castings Co., Cleveland.
Draft gears and buffing device; bolster-locking center pins	W. H. Miner, Inc., Chicago
Upper buffer mechanism	Standard Railway Equipment Manufacturing Co., Hammond, Ind.
Structural steel, Cor-Ten	United States Steel Co., Pittsburgh.
Insulation, car-body	Gustin-Bacon Manufacturing Co., Kansas City. Johns-Manville, New York.
Window sash	Adams & Westlake Co., Elkhart, Ind.
Window capping	Formica Co., Cincinanti.
Diesel Enginator units, two 25-kw.	Waukesha Motor Co., Waukesha, Wis.
Fuel tanks for diesel engines	Chicago Boiler Co., Chicago.
Storage batteries, automotive type	Electric Storage Battery Co., Philadelphia.
Air cooling, 20-tons' capacity	Trane Co., LaCrosse, Wis.
Heating system, zone-control	Vapor Heating Corp., Chicago.
Air filters	Farr Co., Los Angeles.
Air distribution panels, electric trainlines and jumpers	Pyle-National Co., Chicago.
Radio and public-address system	RCA Victor Div., Radio Corp. of America, Camden, N. J.
Buffet refrigerators	Frigidaire Div., General Motors Corp., Dayton, Ohio.
Curved glass units, interior paint	Pittsburgh Plate Glass Co., Pittsburgh
Exterior paint	E. I. du Pont de Nemours & Co., Wilmington, Del.
Lighting fixtures	Luminator, Inc., Chicago.
Decorative glass panels	Cadillac Glass Co., Detroit.
Photo full-color murals	Kaufmann & Fabry, Chicago.
Rubber floor covering	Goodyear Tire & Rubber Co., Akron, Ohio.
Floor carpets	Olson Rug Co., Chicago.
Dome seats	Heywood-Wakefield Co., Gardner, Mass.
Lounge settees and furniture	Beck & Blatchford, Chicago.
Venetian blinds, lower lounge	Ajax-Consolidated Co., Chicago.
Seat covering	Goodall Fabrics, Inc., Sanford, Me.
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One interesting feature of the heating system is the use of two Solar Discs mounted outside on the car roof at the rear end. This device lowers the temperature setting of the thermostats in the dome to offset heat from the sun. When a cloud blocks out the sun the Solar Discs immediately react so that more heat or less cooling can be provided to keep the car comfortable.

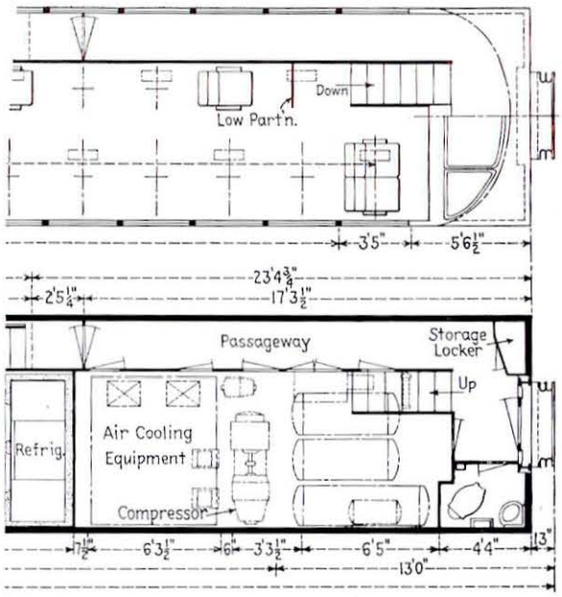
The fuel and water supply tanks and the equipment compartments also have thermostatically controlled heating systems. Hand-operated steam valves control steam supply to steam pipes around the fuel and water-filling inlets. Steam also heats water for the kitchen and wash rooms, controlled by a flow-limit valve in one of the Vapor safety steam regulators.

How the Trucks Function

The six-wheel trucks with 6½-in. by 12-in. axles required to support the weight of the "Super-Dome" car are a special General Steel Castings design, shown by test to give exceptional ease of riding under all speed and normal track conditions and in spite of carrying the main passenger load at an unusually high level. The all-coil-spring truck is equipped with rubber bumpers, Miner bolster-locking center pin, Gatke center-plate liners, Fabreeka insulating pads under the equalizer ends and brake pins fitted with Pol-pin collars and cotters, supplied by the Elastic Stop Nut Company. Rubber pads to dampen vibration and noise are also applied at the constant-contact friction-type side bearings, bolster coil springs, bolster bumpers and anchor rods.

This truck differs from conventional six-wheel trucks in a number of ways, especially elimination of swing hangers and spring plank, with lateral movement transmitted through the bolster springs; provision of integral cross and center bolsters positioned above the truck frame and hence readily removable for easy truck inspection or repairs. Practically all truck parts such as springs, shock absorbers, anchor rods and rubber bumpers are located outside the truck frame. Even the side bearings are brought outside and spaced 8 ft. 3 in., as compared with 7 ft. 7 in. on standard passenger cars using six-wheel trucks to give added stability.

Truck springs are of the coil type, the four relatively stiff 9-in. diameter equalizer springs with 14⅜ in. free height and 2⅜ in. static deflection cushioning road shocks which would otherwise be transmitted to the main truck frame. To give a still softer and more flexible ride to the car body and contents, four 13⅝-in. diameter coil springs with 26-5/16 in. free height and 8-13/16 in. static deflection are installed between the main truck frame and the body bolster. The total vertical travel, limited by positive stops and cushioned by the Monroe shock absorbers, is 4 in., 1 in. above normal position and 3 in. below. The maximum lateral bolster movement is 2¼ in. each way from the center, cushioned for the first inch by the Houde absorbers and for the next 1¼ in. by the hydraulic device in combination with gradually increasing resistance of the rubber bumpers until a positive stop is reached.



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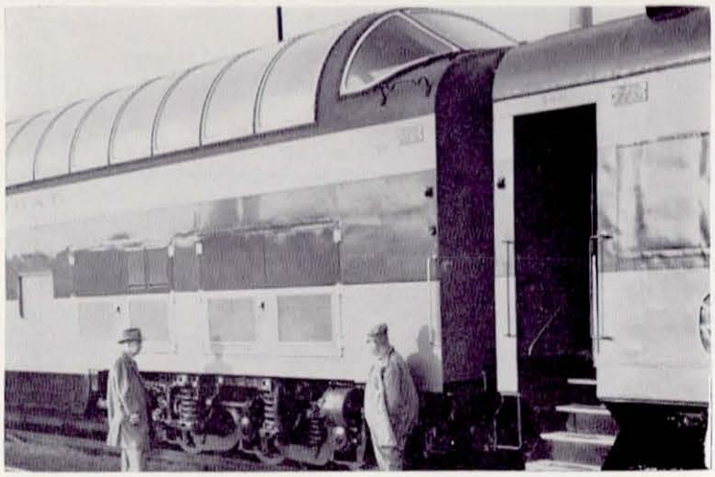
Lockers and refrigerators	2,065
Crew	350
Total	9,080
Passengers weight details, lb.:	
68 seats in dome	10,200
28 seats in lounge	4,200
Total	14,400

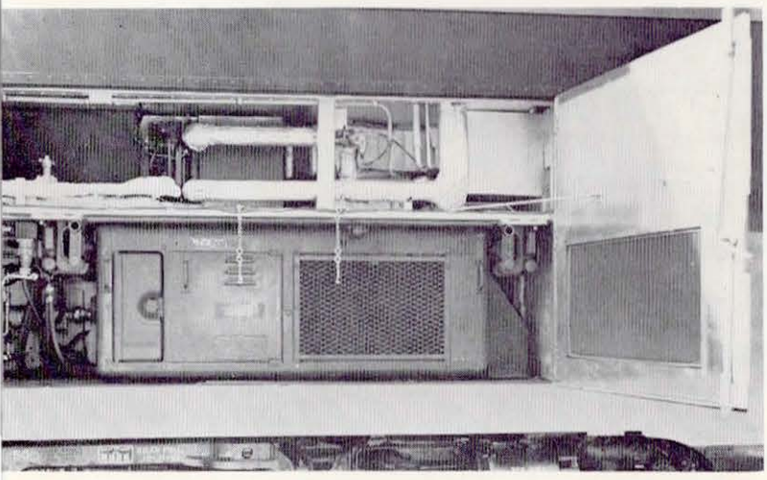
The Heywood-Wakefield seats in the full-length dome section are rubber cushioned and non-revolving.

Details of dome-section entrance to one of the stairways, with Milwaukee running Indian trademark on the dash.

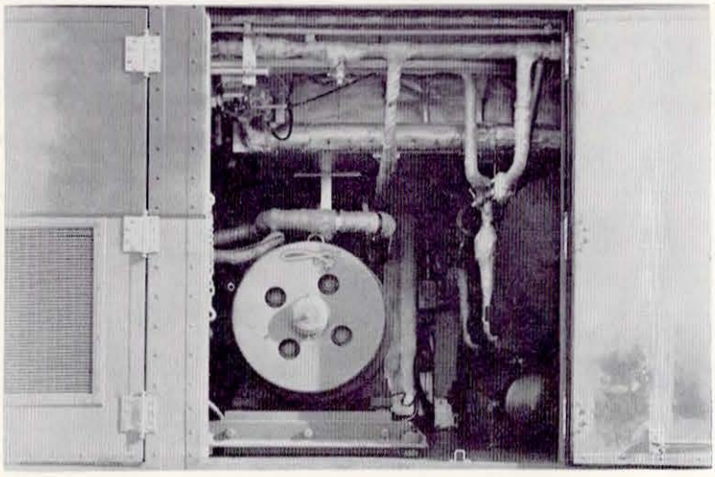
Decoration and equipment in the roomy lounge section which occupies the depressed center part of the car.



The General Steel Castings six-wheel truck, equipment compartment doors and exterior of dome sash at end.



One of two Waukesha 25-kw. Enginator units which can be pulled out of the equipment compartment.



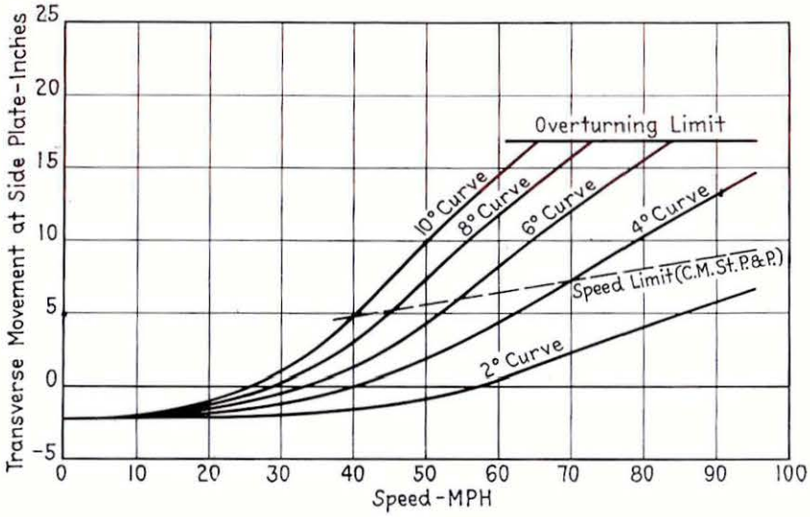
One equipment door closed and one open to show the Trane 20-ton compressor and connections.

direct fluid-drive connection to a fully enclosed electric generator. The generator regulators are set at 38 volts and the lamp regulators at 31 volts. Five Exide six-volt automotive-type batteries with 120-amp. capacity at 20 min. rating are floated across the line and supply power for engine starting.

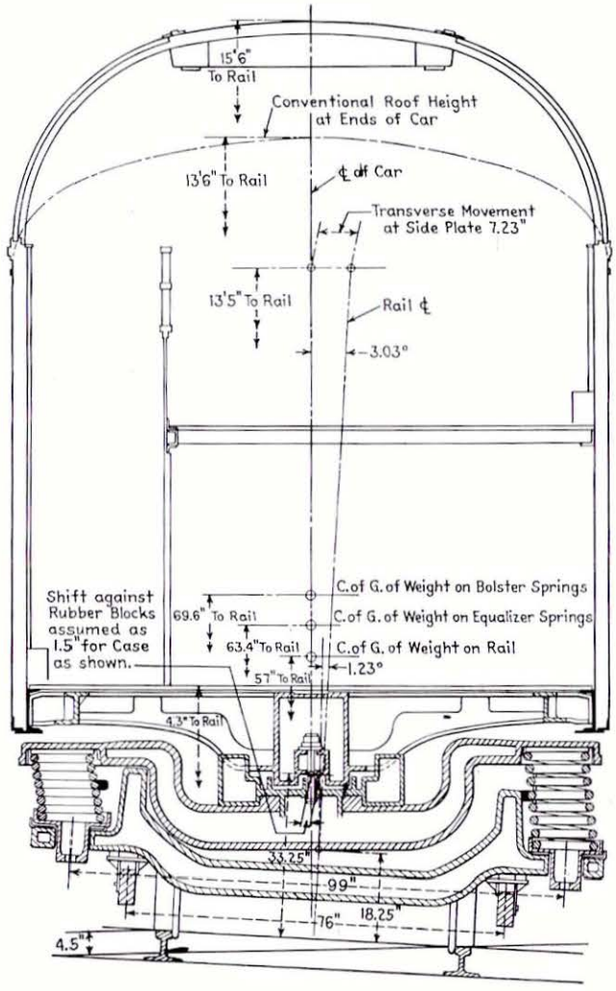
Control panels for the two power units contain fuel gages, high- and low-heat protective switches, automatic load disconnect switch in case of engine failure and other necessary controls, including interlocks to give a visual indication of power-unit failure and reduce the air-conditioning load requirement. Two diesel fuel tanks of 150-gal. capacity each are installed.

The engine exhaust pipes are 2½-in. stainless steel, carefully insulated. Tubular-type mounting tracks with extension and roller-bearing shear-rubber-cushioned trollies are arranged to support the Enginator units. By careful attention to details, the Enginator units and all other power equipment in the car are effectively insulated against vibration and noise transmission to the passenger compartments.

The Milwaukee "Super Dome" car is cooled by a Trane air-conditioning system with double the capacity of most present-day passenger-car installations. Each of the new dome cars has refrigeration equipment capable of producing 20 tons of ice a day, which compares with



Body roll of full-length dome car, calculated for curves with 4½-in. super-elevation.



Body-roll diagram for full-length dome car. Condition shown is for 70 m.p.h. on 4-deg. curve with 4½-in. super-elevation and full passenger load.

7 to 8 tons of cooling capacity for standard sleepers and coaches.

Despite high cooling capacity, the new "Hiawatha" air-conditioning system is said to be economical in consumption of power, diesel fuel, and water due to two important developments by the Trane Company in railway refrigeration. The first of these is the eight-cylinder, 20-ton compressor, heart of the cooling system. The compressor automatically steps down its operation and power consumption, by releasing pressure from pairs of cylinders, whenever cooling requirements drop. This system of unloading is largely responsible for the savings in diesel fuel consumption. It also reduces wear and tear on both the compressor and the diesel-electric power plant by minimizing intermittent starting and stopping.

A second feature is the Trane combination dry-wet condenser, which cools and condenses the hot, gaseous refrigerant from the compressor, and thus dissipates heat from the car to the outside air. Under moderately warm conditions, the condenser operates dry, much the same as the condenser on a household refrigerator.

During 90-deg. summer-weather, the condenser coils are sprayed automatically with water, which intensifies the cooling as it evaporates. Because the new condensers operate "dry" about 90 per cent of the time, they are said to use a fraction of the water consumed by fully flooded condensers, this water saving being highly important on hot, dry western runs.

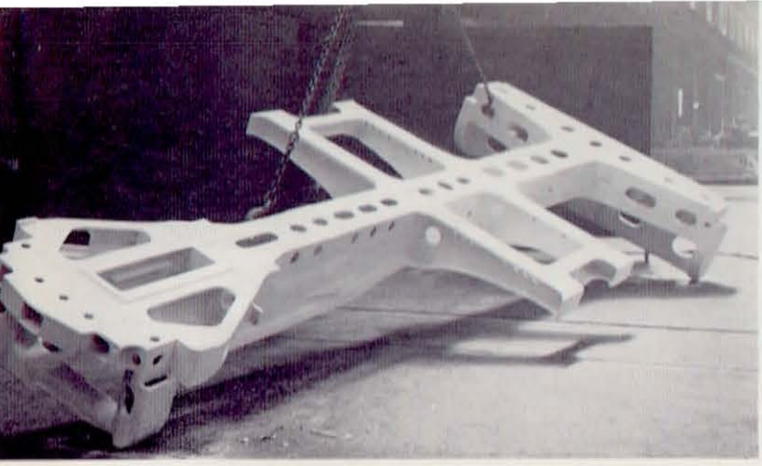
Three standard compact Trane railway air conditioners, which include steam heating coils, maintain controlled comfort conditions at all times. Two eight-ton units supply filtered, conditioned air to the Pyle-National Multi-vent ceiling outlets in the dome section through double-glass windshield ducts at each end. A smaller four-ton air conditioner supplies the 28-seat dining-lounge section on the lower level, offsetting the heat and humidity of the electric kitchen. The air conditioners also maintain a slight positive pressure throughout the cars, thus minimizing infiltration of dust and moisture.

An important departure in this dome car design is the location of all air-conditioning equipment as well as power plants in two compact compartments, above the trucks, at each end of the car. These equipment spaces are completely protected from the dust and moisture that complicate traditional under-car location. The equipment compartments are accessible from the outside or inside.

Effective Heating Equipment

No passenger train or car can operate many months in Milwaukee territory without effective heating equipment and much attention has been given to this detail in the new cars. The heating system utilizes narrow unit-fin radiation with solenoid valve, latest-type loop equipment, zone-control and individual circuits for each portion of the car on the various floor levels, as developed by the Vapor Heating Corporation. By turning one switch on the electric control panel the trainman puts the system into operation; then sensitive Vapor thermostats take over and operate the steam valves and the air-conditioning compresser automatically to keep the passengers comfortable as the outside temperature changes from subzero to over a hundred.

On mildly cool days the car is heated by the overhead system, fresh air being brought into the car and mixed with recirculated air as it passes through a thermostatically controlled steam-heated radiator in the duct



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The fuel and water supply tanks and the equipment compartments also have thermostatically controlled heating systems. Hand-operated steam valves control steam supply to steam pipes around the fuel and water-filling inlets. Steam also heats water for the kitchen and wash rooms, controlled by a flow-limit valve in one of the Vapor safety steam regulators.

How the Trucks Function

The six-wheel trucks with 6½-in. by 12-in. axles required to support the weight of the "Super-Dome" car are a special General Steel Castings design, shown by test to give exceptional ease of riding under all speed and normal track conditions and in spite of carrying the main passenger load at an unusually high level. The all-coil-spring truck is equipped with rubber bumpers, Miner bolster-locking center pin, Gatke center-plate liners, Fabreeka insulating pads under the equalizer ends and brake pins fitted with Pol-pin collars and cotters, supplied by the Elastic Stop Nut Company. Rubber pads to dampen vibration and noise are also applied at the constant-contact friction-type side bearings, bolster coil springs, bolster bumpers and anchor rods.

This truck differs from conventional six-wheel trucks in a number of ways, especially elimination of swing hangers and spring plank, with lateral movement transmitted through the bolster springs; provision of integral cross and center bolsters positioned above the truck frame and hence readily removable for easy truck inspection or repairs. Practically all truck parts such as springs, shock absorbers, anchor rods and rubber bumpers are located outside the truck frame. Even the side bearings are brought outside and spaced 8 ft. 3 in., as compared with 7 ft. 7 in. on standard passenger cars using six-wheel trucks to give added stability.

Truck springs are of the coil type, the four relatively stiff 9-in. diameter equalizer springs with 14⅜ in. free height and 2⅜ in. static deflection cushioning road shocks which would otherwise be transmitted to the main truck frame. To give a still softer and more flexible ride to the car body and contents, four 13⅝-in. diameter coil springs with 26-5/16 in. free height and 8-13/16 in. static deflection are installed between the main truck frame and the body bolster. The total vertical travel, limited by positive stops and cushioned by the Monroe shock absorbers, is 4 in., 1 in. above normal position and 3 in. below. The maximum lateral bolster movement is 2¼ in. each way from the center, cushioned for the first inch by the Houde absorbers and for the next 1¼ in. by the hydraulic device in combination with gradually increasing resistance of the rubber bumpers until a positive stop is reached.

"Capital expenditures made by the railroad industry during 1952 will approximate $1,375,000,000, of which slightly more than a billion dollars is for acquisition of equipment and the remainder for additions and betterments to roadway and structures. This will bring to nearly $8 billion the capital expenditures made since end of World War II . . . Indebtedness of the railroad industry totals little more than the capital expenditures made in the last seven years."

Investment Bankers Find . . .

BOTH GOOD AND BAD

. . . In Railroad Finances

Railroad credit, measured by higher prices for railroad securities, has improved; but the industry's earnings, measured either by rate of return or by purchasing power, are still inadequate. The outlook for 1953 has both favorable and unfavorable aspects.

Those seemingly contradictory conclusions as to the railroads' financial situation were stated, and explained, in a report presented to the Investment Bankers Association of America during its 41st annual convention in Hollywood, Fla., last week by its Railroad Securities Committee, of which Charles L. Bergmann, partner in the New York investment firm of R. W. Pressprich & Co., is chairman.

"During 1952," the committee said, "railroad bonds and stocks found increasing favor with investors. The Dow-Jones rail averages, which stood at 81.70 at the end of 1951, rose to 103.95 on November 20, 1952, a 27 per cent increase. This contrasts with an increase of only 4 per cent in the Dow-Jones industrial averages in the same period. Likewise, an acceptable index of railroad income bond prices shows an increase of nearly 8 per cent in this period. Further, dealers in investment quality railroad bonds have noted an increased demand for this type of security.

"The improved market status of railroad securities may be attributed to two main factors: (1) The relatively favorable 1952 financial results; and (2) the improved outlook for essential and constructive revisions of our national transportation policy."

"Gross revenues in 1952," the report continued, "may reach an all time high of $11 billion. Estimated net income of $750-760 million would be greater than that for any year of the last two decades, excluding the war years of 1942 and 1943. Although earnings as reported for 1950 were somewhat higher than estimated 1952 results, these figures included substantial amounts of retroactive mail pay properly allocable to earlier years. Dividend payments estimated at $350 million will be the highest payout since 1930.

Rate Increases Helped

"Earnings for 1952 were benefited substantially by rate increases which became effective in April of this year. . . . It is significant to note that the increases granted this year were the full amounts which the carriers sought and for the first time in our recollection the I.C.C. did not withhold some part of the relief requested. On the other hand, there was, as so frequently has been the case, a prolonged and costly delay between the application for the increases and the granting thereof.

"It should be noted that the favorable 1952 financial

results are not all they seem. Appraised in terms of return on railroad property investment or in terms of purchasing power, railroad earnings are still inadequate. Also, under I.C.C. accounting procedure, railroad earnings as reported reflect income tax savings derived from accelerated amortization privileges, but do not reflect total amortization charges. However, four to five years hence reported earnings will no longer reflect the benefit of the tax savings, whereas the depreciation charges for these facilities will continue to be included in the expense accounts.

"Capital expenditures made by the railroad industry during 1952 will approximate $1,375 million, of which slightly more than $1 billion is for acquisition of equipment and the remainder for additions and betterments to roadway and structures. This will bring to nearly $8 billion the total of capital expenditures made since the end of World War II. It is significant to note that the total indebtedness of the railroad industry is little more than the amount of capital expenditures made in the last seven years. Except for equipment financing the industry has not been a seeker of new capital to any important extent. To the contrary, it has actually been reducing the volume of securities in which we deal most actively.

"During 1952 it is estimated that approximately $269 million of long-term bonds will have been issued by railroad borrowers, of which all but $16 million was for refunding purposes. The financing of new equipment will result in issuance of about $266 million of equipment trust certificates and placement of about $316 million of conditional sales agreements. The so-called Equitable Plan of equipment leasing was employed with respect to equipment having an estimated value of $24 million, a relatively small part of the total.

Stock Splits, Convertible Bonds Favored

"In our report for 1951 we noted that many railroad companies were reporting very large earnings per share on their common stocks and further commented that these created a false impression of prosperity for the railroad industry. We then stated, 'In most cases large per share earnings are the result of a small stock capitalization against a large property investment earning only an average rate of return' and went on to suggest that such companies correct this false impression by increasing the number of shares outstanding either by stock dividends or stock split-ups. During 1952 to date three railroad companies split their outstanding capital stocks. We suggest that there are other well known companies that might properly consider this procedure.

"We also recommend that companies contemplating financing programs, either for the purpose of raising new money or for refunding maturing obligations, give greater consideration to issuance of convertible bonds. In view of the relatively favorable market for railroad equities which exists today, such a procedure could result in a lower borrowing cost and at the same time provide potential opportunities for further improvement in the industry's debt ratio.

"The main competitive threat to the railroad industry continues to be the highway carrier. Huge highway construction programs at public expense enable the trucker to operate at a competitive advantage. However, the recent trend toward construction of toll roads and imposition of adequate user charges should make highway competition more equitable.

"Looking ahead, the outlook for 1953 has both favorable and unfavorable aspects. Obviously, financial results for 1953 will depend both on volume of business and cost of producing transportation service. With so many well known economists in disagreement on the business outlook for 1953, it does not seem appropriate for this committee to voice an opinion on the prospective railroad traffic volume. However, inasmuch as wages represent such a large part of railroad operating costs some comment pertaining thereto is pertinent.

Wages May Rise

"A large part of railroad labor is working under agreements which expire in October 1953. These agreements provide for changes in hourly wage rates upward or downward in accordance with a formula tied to a cost of living index. If the wage rates currently in effect prevail throughout all of next year and there is no change in the level of railroad employment, next year's wage bill might be some $67 million higher than the 1952 level, due to the escalator provision. Further, if the program of negotiating new contracts, to supersede those now expiring late in 1953, seeks to secure for railroad workers the same percentage increases achieved by the steel workers, and probably the coal industry, in the period from January 1950 to August 1952, the railroad wage bill might be further increased by an estimated $400 million.

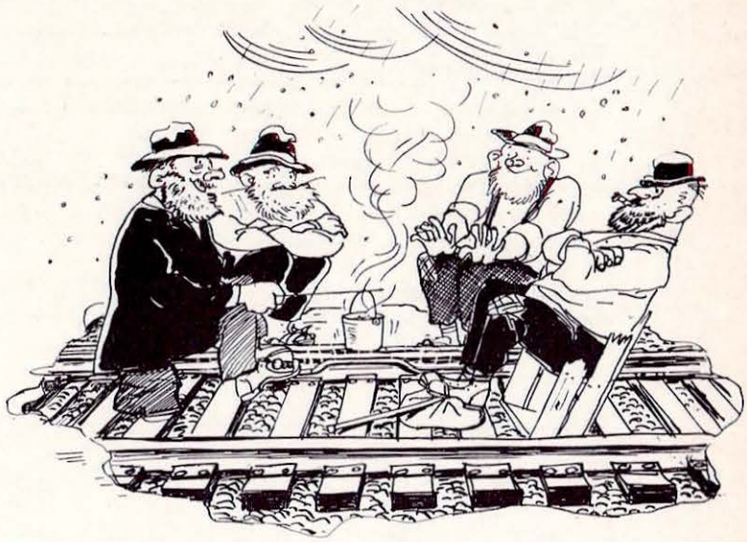
"On the more favorable side is the ever widening recognition of problems posed to transportation by outmoded and unrealistic regulatory policies, both at state and national levels. One of the most significant, as well as recent, positions on this subject was taken by the National Association of Railroad and Utilities Commissioners at its annual meeting during November [in adopting] a committee report embodying eight specific recommendations designed to put railroad passenger service on a paying basis (*Railway Age*, November 17, page 67). . . .

"Another major undertaking dealing with problems of national transportation policy is now rapidly reaching the action stage. For the last seven years our reports have made reference to the Cooperative Project of the Transportation Association of America, which seeks by agreement among all interested parties to formulate a modern transportation policy geared to today's competitive conditions. The report of the project is now in the hands of the directors of the T.A.A. and has received widespread acclaim from many groups interested in our transportation problems.

Recommends Support of T.A.A.

"A number of bills affecting transportation regulation were introduced in the Senate in January of this year. One of the more important of these would revise the basic rule of rate making and another seeks to reduce the time lag between the impact of higher costs and achievement of compensating rate increases. These bills, as well as many of the others, bore a striking resemblance to certain of the recommendations contained in the report of the National Cooperative Project, although we do not believe they were then promoted by the T.A.A. While these bills were not enacted into legislation during the last session of Congress, it is to be hoped that public opinion fostered by the T.A.A. program will accomplish a greater degree of success in the 1953 Congress.

"We recommend that all friends of free enterprise, and particularly those interested in transportation—whether as users, providers or investors—support the Transportation Association program."



The cost of electric heating should be less than that of other methods when there is need for more than 100 hours of snow melting per season and power is not too far away

Economical Snow Melting

. . . With Electric Switch-Heaters

By H. C. GRIFFITH, JR.
Transportation Industries
General Electric Company
Schenectady, New York

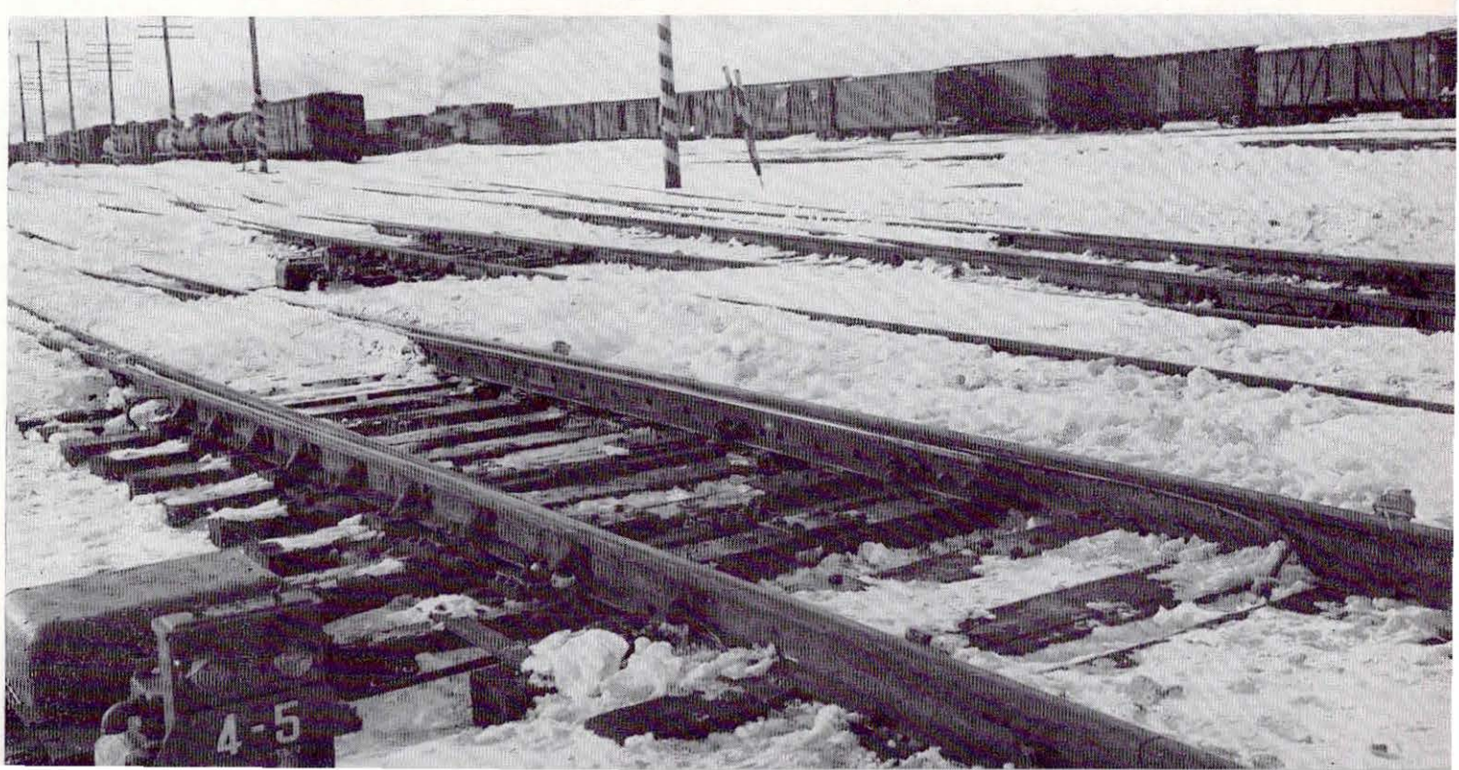
Years of actual use are substantiating the fact that electric, tubular type switch-heaters attached to the inside of the stock rail will effectively keep movable rails of railroad switches free of snow and ice which may prevent the closing and locking of switch mechanisms.

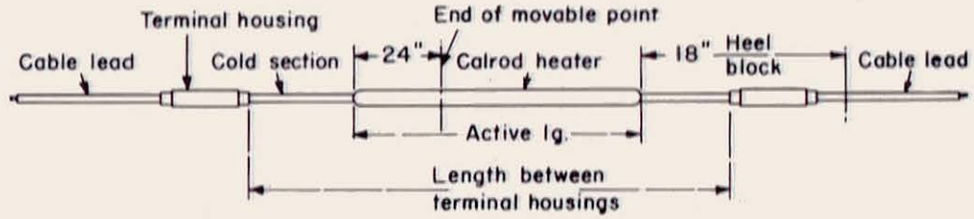
Switch-heaters for railroad track switches consist of a heater with a sealed terminal housing and a rubber-covered cable lead at each end. They are designed to be clamped against the stock (stationary) track rail, between it and the movable point.

The sheath of the heater consists of seamless, noncorrosive tubing. The heater is swaged to 0.605 in. in diameter. Then it is flattened on both sides to a maximum thickness of 0.540 in. over the entire active heating section. This flattening improves the heat conduction to the rail and provides greater clearance between the heater and the movable point.

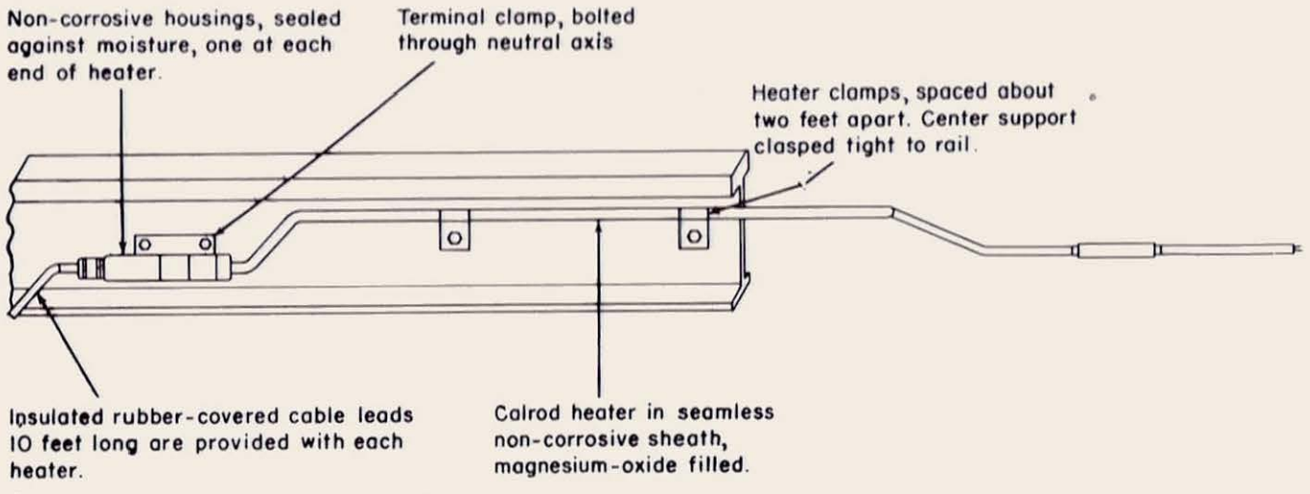
The insulation between sheath and resistance element, which is positioned inside the sheath, is magnesium oxide, a granular refractory material unaffected by very high temperatures. Magnesium oxide has high dielectric strength, and also has the property of quickly conducting heat from the heating element to the metal tubing. The magnesium oxide powder is shaken and packed

In the foreground are three of 68 electrically heated track switches, each equipped with two Calrod electric snow melters, installed at the Clearing yard of the Belt Railway of Chicago.





Electric switch heaters consist of a heater with a sealed terminal housing and a rubber-covered cable lead at each end.


Non-corrosive housings, sealed against moisture, one at each end of heater.
Terminal clamp, bolted through neutral axis
Heater clamps, spaced about two feet apart. Center support clasped tight to rail.
Insulated rubber-covered cable leads 10 feet long are provided with each heater.
Calrod heater in seamless non-corrosive sheath, magnesium-oxide filled.

Heaters are secured tightly at the center, thereby allowing for expansion in both directions.

down into the tube, around the resistance element. The entire tube is then swaged. This action reduces the tube's diameter and packs the magnesium oxide powder so solidly that air cannot reach the resistance wire. Absence of air prevents oxidation. This dense construction also permits the unit to be subjected to vibration and pounding without harm.

At each end of the heater and inside a terminal housing, connection is made between the resistance element and a 10-ft. length of cable lead.

These heaters can be made for circuits of 750 volts or less. They can have ratings up to 500 watts per foot of active heating section.

Equipment Needed for Utility Power

Electric power for energizing the heater resistance elements is usually obtained from a utility company. When service is provided at primary voltage (4 kv. and higher), a typical list of equipment needed to use this power is as follows:

Lightning arresters
Fused cutouts
Transformer
Secondary magnetic switch
Sectionalizing breakers (if desired)
Cable
Switch-heaters and supports

The lightning arresters provide protection against lightning disturbances and the fused cutouts protect the transformer. Because of the ambient conditions under which snowmelters operate, an increase of 30 per cent is available above rated transformer capacity. The American Standards Association outlines the rules which permit this increase to transformer nameplate rating. Since this increase in rating is permitted by heating considerations, other equipment such as contactors, cable, etc., should not be similarly increased in rating without the recommendation of the manufacturer. The contactor that applies power can readily fit into a system of remote control, and most railroads use this feature to advantage. The type of contactor and amount of sectionalizing varies between installations. A small saving is possible in using series-connected, 240-volt heaters for each switch.

Series Connection Possible

Series connection requires less cable and trench digging than would be necessary if 480 volts were connected to each heater. There is also the possibility that on installations involving only one or two switches, the power utility may offer 240-volt transformers with its service. Standardization of voltage is therefore an advantage worth considering. Hardware for supporting the heater can be purchased along with the switch heaters.

Since the heaters elongate when energized, correct installation is made by securing the center of the heater to the rail.

This permits support along the rail and expansion in both directions. Test data indicate that the switch point needs the greatest heat, and less heat can be tolerated in the vicinity of the heel block. This is being accomplished by installing two feet of active heating section ahead of the switch point and diminishing the heat near the heel block if the heater length is equal to the movable point length.

Like an Electric Stove

Making use of electric snowmelters is analogous to the use of an electric stove. The heating elements are similar except that a snowmelter is larger in diameter (*Continued on page* 83)

These FREE NEW BULLETINS

show how Jordan Spreaders • Ditchers • Snowplows solve construction, roadbed maintenance and snowfighting problems

Veteran maintenance and construction men of railroads, mines, steel mills and contracting firms know that action photos tell the Jordan story best. These new bulletins give you just that.

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- **"Road-Master" Bulletin: spreaders, spreader-ditchers and spreader-ditcher-snowplows for all normal jobs done by the Standard Type Jordans plus ability to do many of the more common heavier jobs.**
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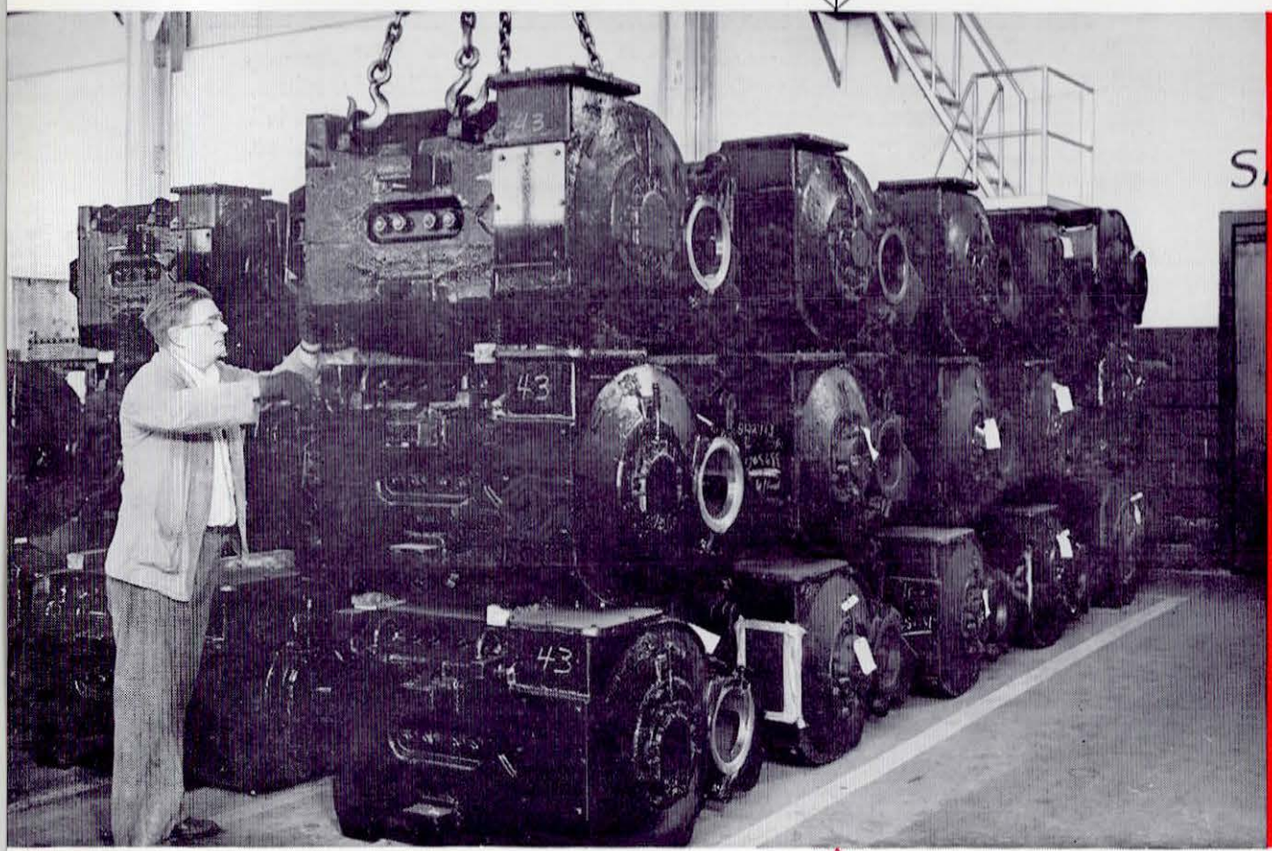
How to get factory-rebuilt motors



Factory-rebuilt traction motors and other major components are stocked at La Grange and seven other strategically located points.

IF YOU have anything to do with the maintenance of General Motors Diesel locomotives—whether one unit or hundreds—you'll certainly find this explanation of Electro-Motive "Unit Exchange" of interest.

"Unit Exchange" is Electro-Motive's name for a unique system of components replacement. If a traction motor, generator, engine or other major Diesel locomotive component needs overhaul, you simply order a "Unit Exchange" assembly and receive immediate shipment of a *completely rebuilt, fully guaranteed* unit—shipped F.O.B. our nearest Factory Branch. In most cases, it can be delivered in your shop within 24 hours!

You don't need to hold a locomotive out of service waiting for the assembly to be rebuilt. We carry the spares for you—supply them immediately in emergencies or on predetermined schedules to meet your requirements—*and make no extra charge for the service!* You can get along with smaller inventories, and keep your locomotives at work more hours per year.

You return your old assembly for rebuilding and when it is brought up to our good-as-new standard, it goes into our pool ready for the next shipment. *The price you pay is determined solely by the material and labor needed to bring your old assembly to the same top-standard condition as the one you receive.* The charge is exactly the same as if you send us a unit for Rebuild-and-Return.

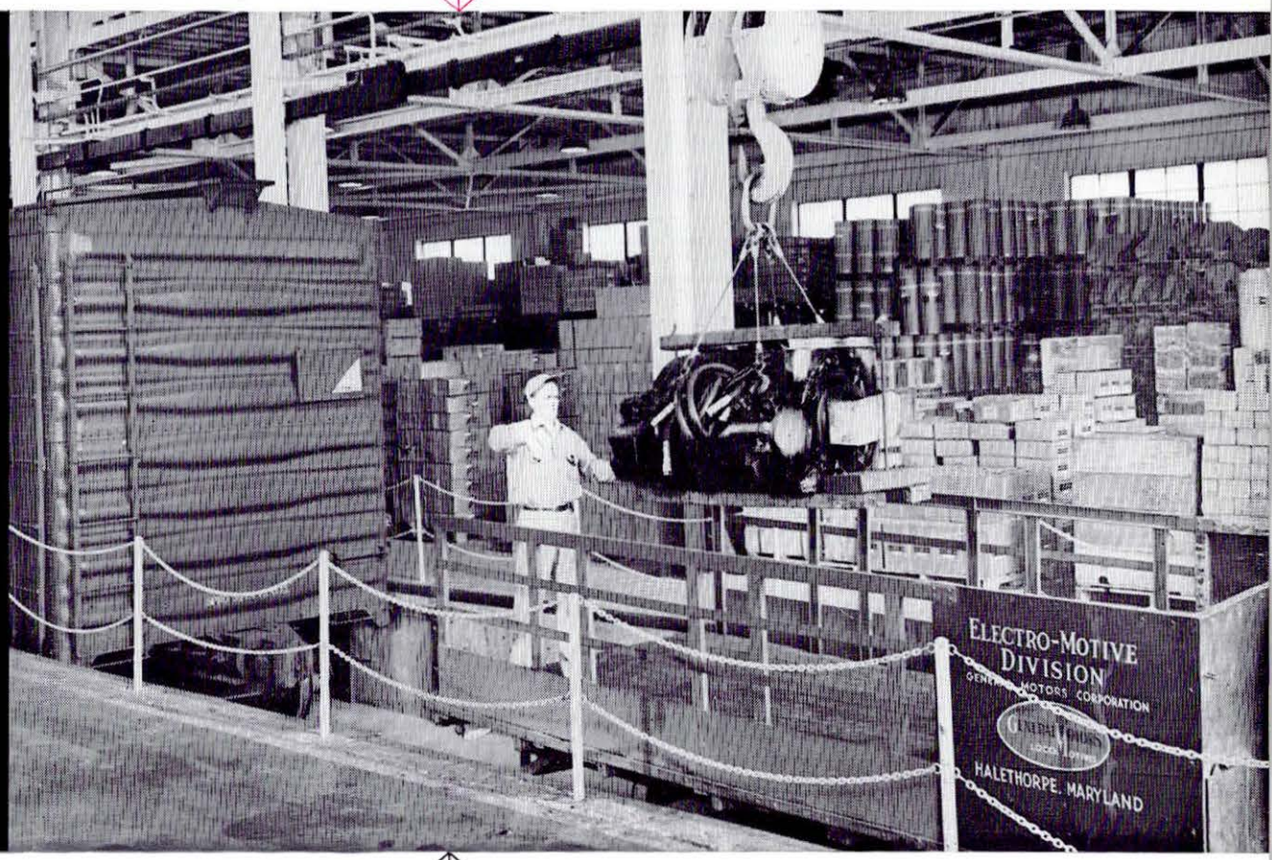
Because of volume operation and modern laborsaving techniques, Electro-Motive's published flat-rate charges are the lowest you'll find for high-quality work. Only *genuine* Electro-Motive parts are used and *every* assembly rebuilt by Electro-Motive carries the same guarantee as new—*100,000 miles or one year of service.*

That's what we mean by "Unit Exchange." Let us show you how much it can save your railroad. Write us for full particulars, or consult your local EMD representative.

overnight — *and pay no premium!*

that's what we call "UNIT EXCHANGE"

Over 85% of all General Motors locomotives are "on line" to Electro-Motive Factory Branches. "Unit Exchange" deliveries can often be made in your shop within 24 hours.



10 PLUS FEATURES IN ELECTRO-MOTIVE'S LIFELONG SERVICE PROGRAM

1. **UNMATCHED EXPERIENCE** gained in designing, engineering and building more than 11,000 Diesel locomotive units.
2. **SUPERIOR MANUFACTURING FACILITIES** for mass-production of highest-quality locomotives at lowest cost.
3. **PROMPT PARTS SUPPLY** through strategically located factory branches and parts depots at eight key railroad centers.
4. **SKILLED TROUBLE-SHOOTING** and maintenance advisory service by a nationwide staff of 150 service engineers and parts specialists.
5. **FACTORY REBUILDING** of major assemblies with same techniques and tooling used in new manufacture.
6. **UNIT EXCHANGE SERVICE**—Prompt delivery of fully rebuilt assemblies in exchange for units needing rebuilding.
7. **PROPER SCHOOLING** of operating and maintenance personnel from the first day General Motors equipment goes on the line.
8. **SPECIAL ENGINEERING** of new and improved parts to make them fit General Motors units of any age.
9. **ONE-YEAR 100,000-MILE GUARANTEE** on Electro-Motive parts and rebuild effective upon installation, *not* the date of shipment.
10. **FACILITIES PLANNING SERVICE**—Expert assistance in helping railroads plan Diesel servicing and parts warehousing facilities.

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GENERAL MOTORS LOCOMOTIVES

In the Buckeye C-R Truck

THE CONTROL DEVICE IS CLEARLY VISIBLE FROM THE SIDE OF THE TRUCK:—

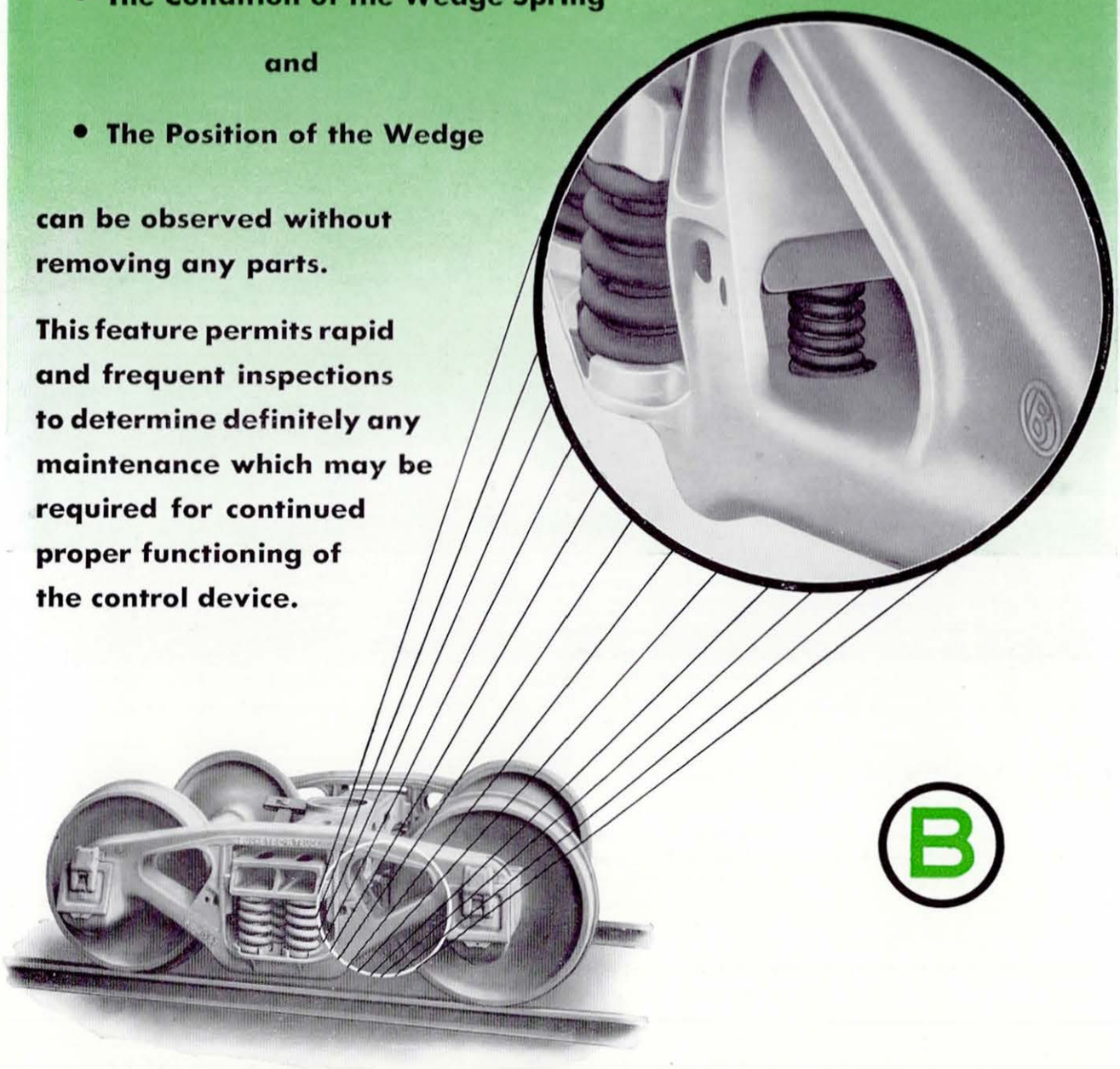
- **The Condition of the Wedge Spring**

and

- **The Position of the Wedge**

can be observed without removing any parts.

This feature permits rapid and frequent inspections to determine definitely any maintenance which may be required for continued proper functioning of the control device.



THE BUCKEYE STEEL CASTINGS COMPANY

New York, N. Y. Columbus, Ohio Chicago, Ill.

(*Continued from page 78*)

and does not become cherry red as the sheath temperatures are lower than the maximum used for cooking. An operator, usually in the nearest signal tower, turns on the switch heaters and melts the accumulated snow and ice until heat is no longer required.

Railroad men know when to apply heat, but they may not know just when the heaters can be turned off. A sturdy thermostat to do this job is available if desired, and several railroads are investigating the savings possible by using it. Simple timers might do the job if more heat is available than required. But the ideal system would contain the elements of a minimum connected load with proper heat distribution along the switch point and a thermostat on the movable rail to maintain temperature within limits when snow melting is required. The most economical system, however, is a simple, reliable installation turned on and off by a diligent operator.

Three Methods of Control

Three methods of control have been used in applying electric snowmelters, i.e., high-low, uniform, and graduated heat.

The high-low heat system applies maximum heat at full voltage and reduced heat with a lower voltage obtained by transformer tap-changing. Many railroad men believe that extensive use of low heat would be an advantage in a high-low heat system. Only supervision can accomplish this advantage in saving.

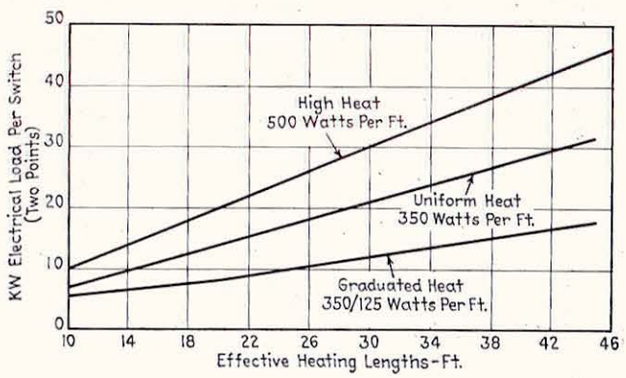
Uniform heat is a single-heat, on-or-off system having a minimum rating in wattage. There is, however, a possibility that using less heat near the heel of the switch might do an equivalent job.

With graduated heat one-third of the length of the heater toward the point end of the switch, or a minimum of 7 feet, operates at a maximum wattage, and the balance of the heater toward the heel of the switch uses a lower rating. The graduated heat is actually a two-step method to distribute heat in proportion to requirements. For 12-ft. switch-points or longer, the graduated heater provides the minimum connected load for all methods and the greatest economy. Where extremely low temperatures are encountered, the use of supplemental ballast type heaters might be necessary to keep the switch-rods clear of ice and snow.

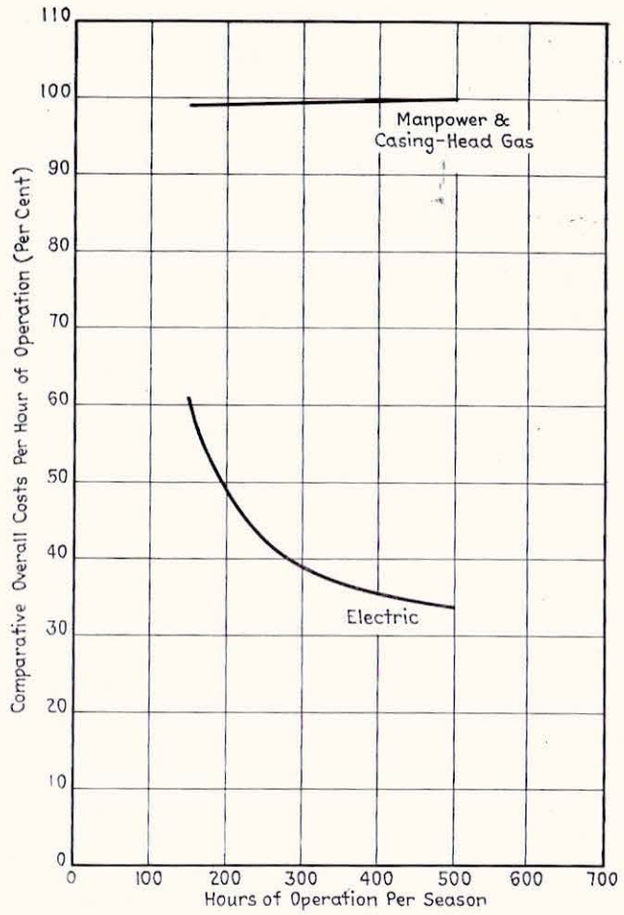
Snow Melting Studies Under Way

Committee XI of the Electrical Section of the Association of American Railroads is now working to reduce snow melting, in effect, to a science. It is necessary to determine the minimum wattage and kind of distribution of heat necessary to handle the worst weather conditions encountered in any given locality. Test data from a cold room will not give quick answers because of the many variables that are met in actual operation. A majority of railroads to date have relied on equipment manufacturers to recommend the minimum wattage for particular installation. These recommendations have, in most cases, been conservative due to the time required to gain experience from installed equipment. Committee XI is sponsoring a program to accumulate rail temperature data on installations of three different railroads during the winter of 1952-53. These data should add materially to existing experience and test information.

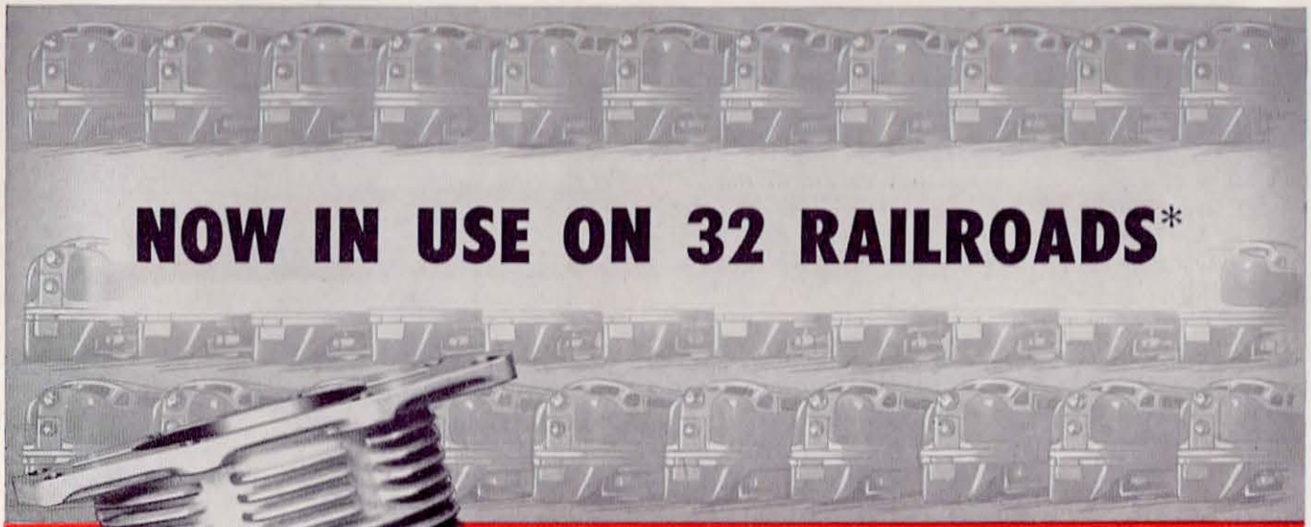
Electric snow melting economics show that some installations will provide more than 30 per cent return on investment over manual methods. Economics may vary between installations and all-inclusive cost surveys are therefore necessary. Consideration must also be given to reliability and safety. The use of manpower for clearing snow becomes very high if the winter season is long and snow is heavy. Where winter weather requires over 100 hours of snow-melting operation per season, electric snow melting provides the best overall economy considering existing methods, if electric power is available within a reasonable distance. An appreciation of this is indicated by the fact that the rate of installing Calrod snowmelters is now more than 1,000 per year.



Kilowatt load versus effective heating length for basic types of electric heating systems.



Overall costs (including fixed charges) for switch heating from an actual railroad cost study.



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TOUGH, LONG-LASTING

GUN IRON

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*NAMES ON REQUEST

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Perry T. Egbert

Duncan W. Fraser

William S. Morris

At American Locomotive . . .

Perry T. Egbert Elected President

Duncan W. Fraser continues as chairman—
William S. Morris elected executive vice-president

Perry T. Egbert and William S. Morris were elected on December 1 president and executive vice-president, respectively, of the American Locomotive Company. Duncan W. Fraser, who has been serving as president and chairman, will continue in the latter position.

Mr. Egbert's Career

Mr. Egbert was born in Ithaca, N.Y., and graduated from Cornell University in 1915 with a mechanical engineering degree. After employment with the Lehigh Valley and the Norfolk & Western, he served from 1916 to 1919 as an aviator in the U.S. Air Corps. Mr. Egbert joined Alco in 1920 and in the following year was appointed the company's technical representative in the Far East. He returned to this country in 1924 and held various sales and manufacturing positions. In 1929 he was placed in charge of development of a new diesel engine designed especially for railroad use.

Headed Diesel Conversion

In 1934 he was appointed manager of railroad diesel sales. Ten years later he was named vice-president, taking charge of Alco's conversion from steam to diesel production, which was completed in 1948. Mr. Egbert, a member of the board of directors since 1947, is also a director of the Montreal Locomotive Works, Ltd., Alco's Canadian affiliate. He has been in charge of locomotive and ordnance division operations at Auburn, N.Y., and Schenectady, where the firm builds diesel locomotives and combat tanks.

Mr. Fraser's entire business career has been spent with the American Locomotive Company or predecessors. He was born in Pictou county, Nova Scotia, June 2, 1875. First elected president of Alco early in 1940, he retained that position until his elevation to the chairmanship late in 1945. When Robert B. McColl resigned as president in January 1950, Mr. Fraser assumed both presidency and chairmanship.

Mr. Morris in Charge of Sales

Mr. Morris, the new executive vice-president, is a native of Richmond, Va. He served in the army in 1917-1918 and graduated from the U.S. Naval Academy in 1922, in which year he joined Alco as a special apprentice at the Schenectady plant. In 1925 he went to Chicago as sales representative, later becoming district manager there. Elected vice-president of Montreal Locomotive Works in 1940, Mr. Morris became executive vice-president of the same firm in 1944. Later that year he transferred to Alco's New York offices as vice-president. Since then he has been in charge of sales for all divisions of the company. He has been a director since 1947.

RAILWAY OFFICERS

(*Continued from page 18*)

Va., succeeding **C. P. Blair,** who has been transferred to the Western General division at Bluefield, to replace the late **J. P. Jackson,** whose death was reported in *Railway Age* December 1, page 109. **William S. Ballard,** assistant terminal trainmaster, has been appointed terminal trainmaster, with headquarters as before at Norfolk, succeeding **J. H. Robertson,** who has retired after 47 years of service.

Mr. Smith joined the N&W as a telegraph operator on the Pocahontas division in June 1920 and subsequently served as dispatcher, assistant yardmaster, yardmaster and assistant trainmaster. He was promoted to trainmaster of the Pocahontas division in December 1940, assistant superintendent of the Radford division in 1941, superintendent of the Pocahontas division in 1942, and assistant general superintendent of the Western General division in May 1951. The latter position has been abolished.

As reported in *Railway Age* October 13, page 175, **J. C. Houston** has been appointed superintendent freight transportation, Lines West district, NEW YORK CENTRAL, at Cleveland. Mr. Houston was born at Covington, La., on October 23, 1908, and was graduated from the University of Michigan (A.B. 1931). He joined the NYC in 1927 as rodman, working during summer vacations, entering regular employment in 1934 as draftsman at Jackson, Mich. He was appointed assistant supervisor of track at Kalamazoo, Mich., in 1939, supervisor of track at Columbus, Ohio, in 1942, assistant engineer at Chicago in 1943 and assistant trainmaster at Rainelle, W.Va., in 1944. After serving as trainmaster at Hobson, Ohio, and Sandusky, Mr. Houston was promoted to assistant superintendent of freight transportation at Cleveland on December 1, 1950.

TRAFFIC

V. H. Biedermann, director of development of the ST. LOUIS-SAN FRANCISCO, has been appointed freight traffic manager at St. Louis. Mr. Biedermann joined the Frisco as an office boy in 1924 and later held numerous clerical positions. In 1938 he became

V. H. Biedermann

soliciting freight and passenger agent at Dallas, Tex. He later served as general agent at Jacksonville, Fla., and at New Orleans, La., and as traffic manager at Birmingham, Ala. In 1951 he was promoted to director of development.

In recognition of the rising volume of travel by women, the UNION PACIFIC has appointed **Miss Mary Buchanan** to tour the nation as a consultant on women's travel problems. Miss Buchanan has been a member of the road's public relations staff for five years.

E. J. Wood, district freight agent of the CANADIAN PACIFIC at Toronto, has been appointed division freight agent at Winnipeg, succeeding **C. E. Doupe,** who has been transferred to St. John, N.B. Mr. Doupe replaces

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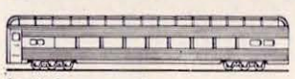

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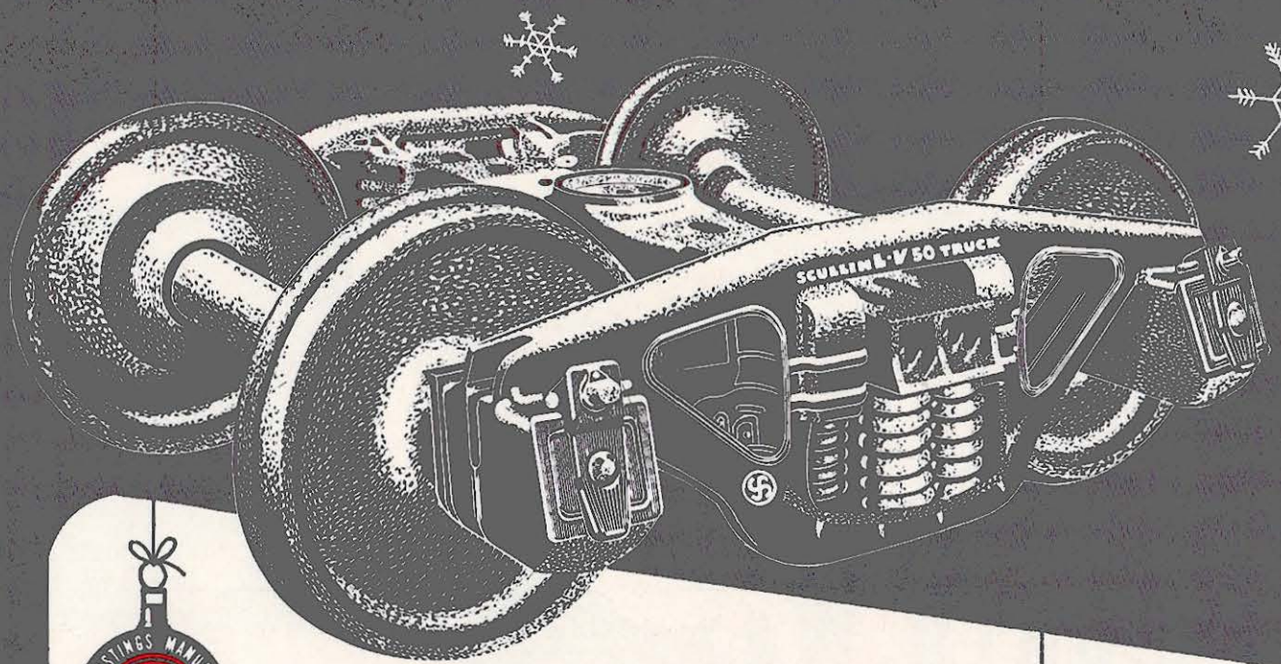

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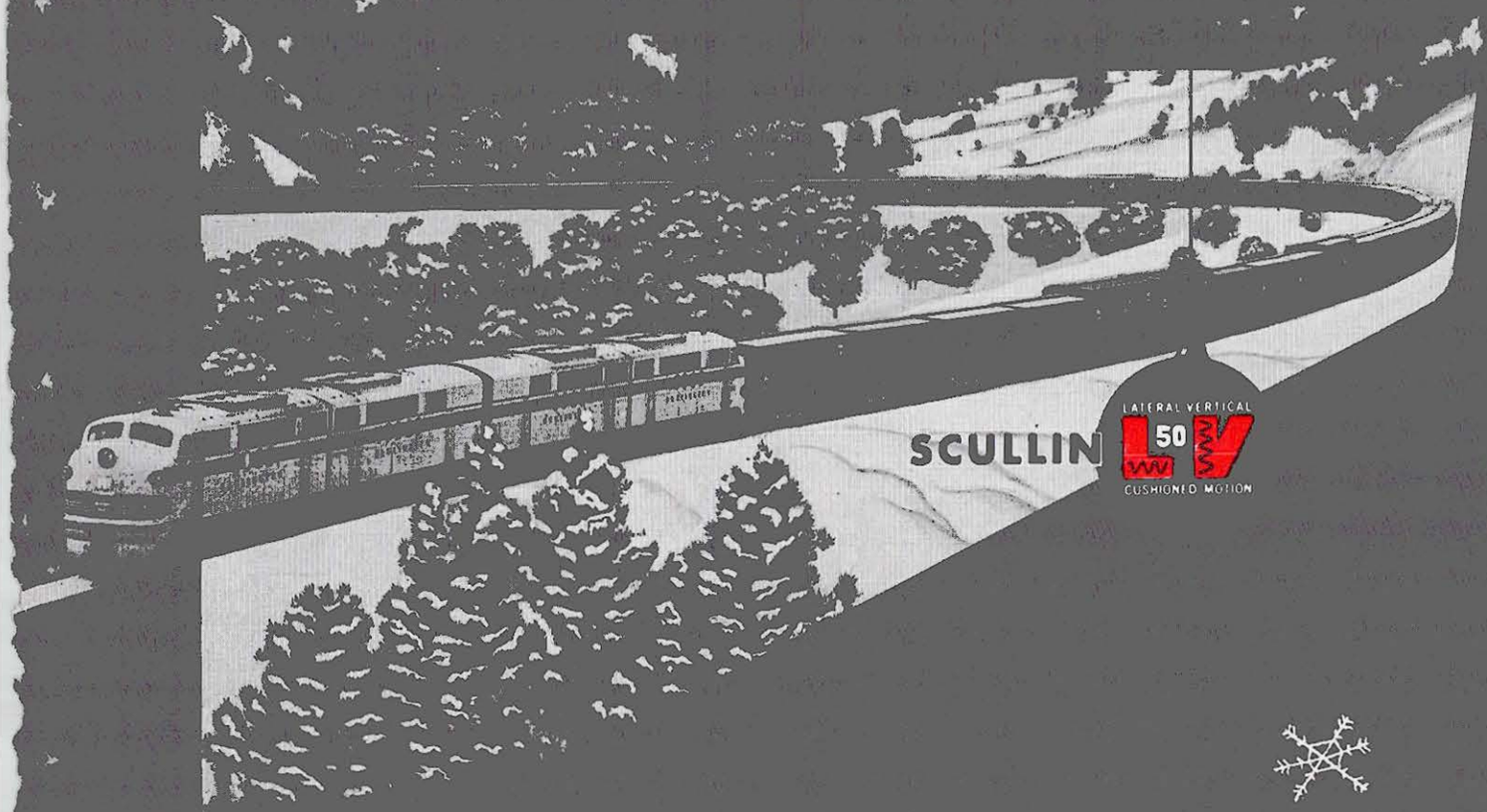

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Robert A. Robinson, who has retired on pension after 41 years of service.

J. P. Roddy, assistant general freight agent of the NORTHERN PACIFIC at Minneapolis, has retired. He has been succeeded by **W. D. Miller,** former general agent at St. Louis, who in turn has been succeeded by **Arthur W. Jones.**

E. A. Williams, general industrial agent of the ST. LOUIS-SAN FRANCISCO, has been promoted to director of development at St. Louis, succeeding **V. H. Biedermann,** who has been promoted to freight traffic manager. **James F. Mohan,** industrial agent, has succeeded Mr. Williams.

Lloyd H. Petrie has been named general agent of the CHICAGO, BURLINGTON & QUINCY at Indianapolis, succeeding **Walter P. O'Rourke,** who has retired.

Hubert F. Hastings, general agent of the ST. LOUIS-SAN FRANCISCO at Memphis, Tenn., has been promoted to traffic manager at Springfield, Mo. He succeeds **H. A. Baker,** who has been named assistant to president at Memphis. **William T. Rutherford,** general agent at New Orleans, succeeds Mr. Hastings; **H. J. Key,** general agent at Little Rock, Ark., replaces Mr. Rutherford; and **R. H. Coiner,** traffic representative at St. Louis, succeeds Mr. Key. **C. A. Bergmann,** general agent at Pittsburgh, Pa., has been named traffic manager

Hubert F. Hastings

there, and **F. C. Evans,** traffic representative, succeeds Mr. Bergmann.

Mr. Hastings joined the Frisco as a clerk in 1919. After holding a number of clerical positions he became soliciting freight and passenger agent

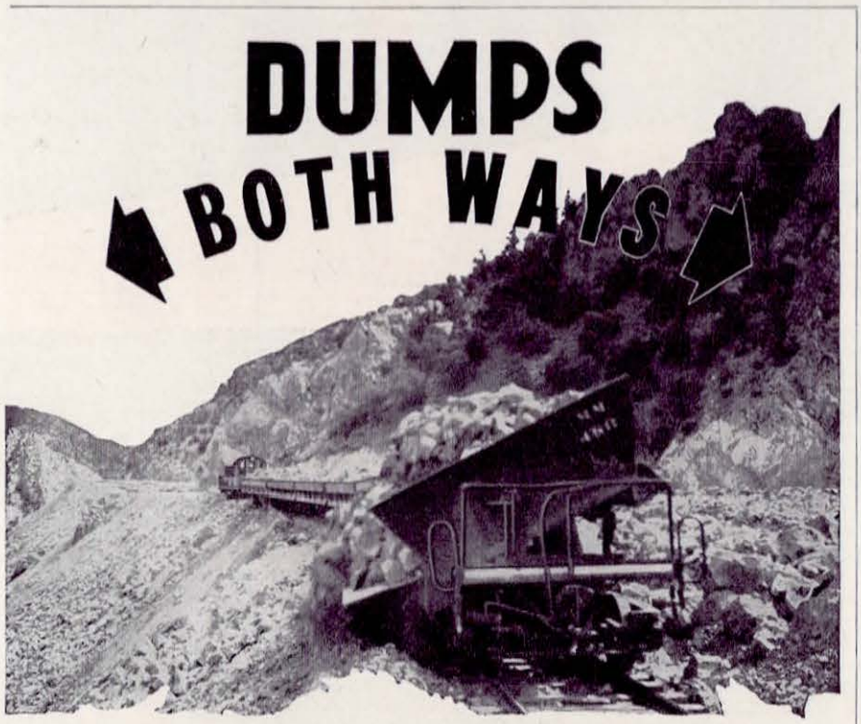
C. A. Bergmann

at Memphis in 1929. He was promoted to general agent in 1947.

Mr. Bergmann began his service with the Frisco in 1928. He was named passenger agent at Tulsa, Okla., in 1935, and in 1951 was promoted to general agent at Pittsburgh.

C. L. Toney, division passenger agent of the SOUTHERN at Richmond, Va., has been transferred to Asheville, N.C., succeeding **O. C. Wilson,** who has been promoted to assistant general passenger agent at Asheville, to replace **C. M. Hill,** deceased. **J. W. Moore** succeeds Mr. Toney as division passenger agent at Richmond.

William F. Coyne, assistant to passenger traffic manager of the SOUTHERN PACIFIC, has been appointed



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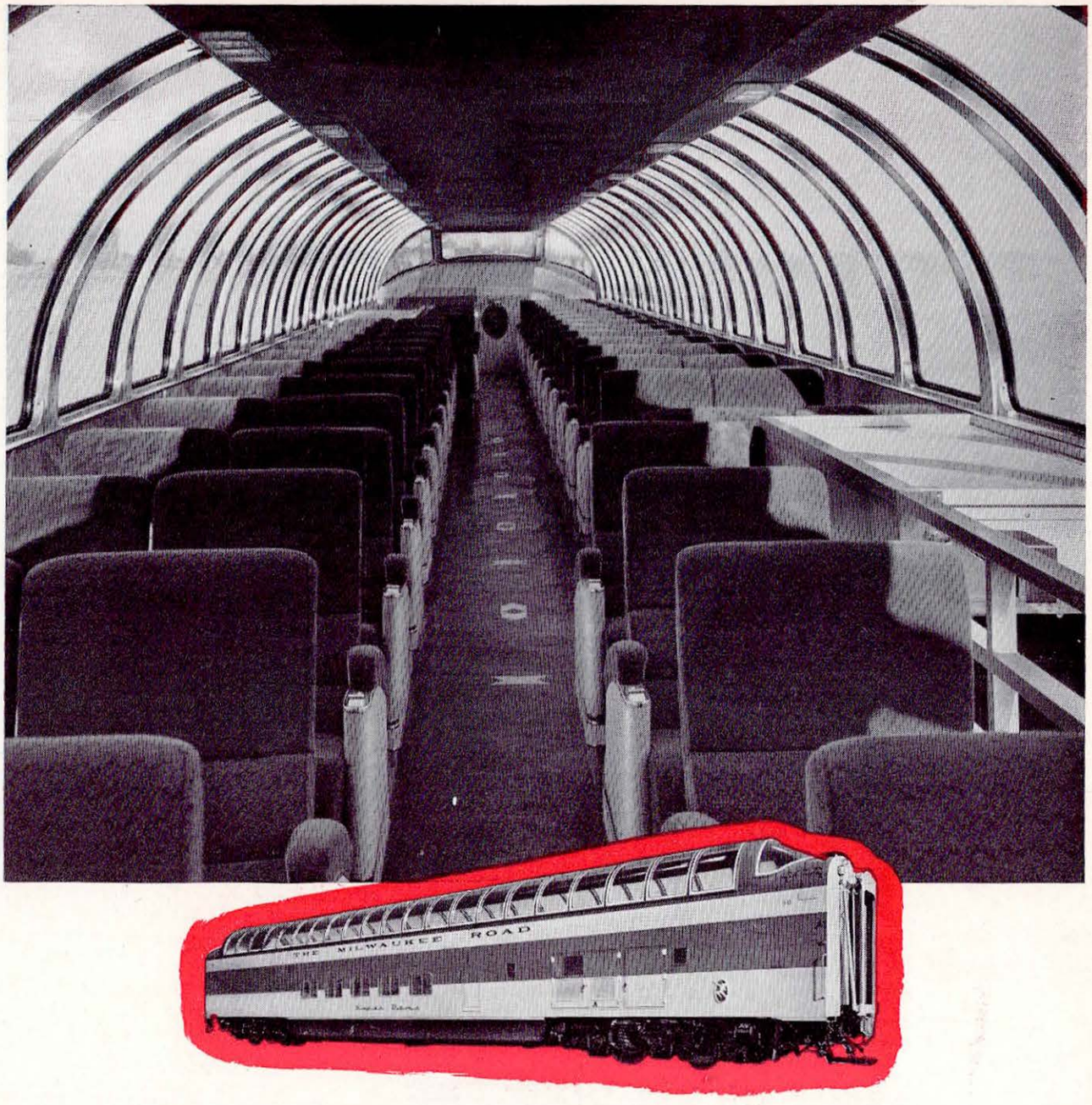

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passenger traffic manager at New York, succeeding **J. H. Desherow,** who has retired. **George V. McArt** has been named assistant to passenger traffic manager, at New York; **Walter M. Holmes, Jr.,** has been appointed assistant to passenger traffic manager, at Chicago; and **Joel Newman** has been named general agent, passenger department, at New York.

George A. Kiel, traffic research assistant of the ERIE at Cleveland, has been promoted to general agent at Des Moines, Iowa, succeeding **Herman A. Bockman,** who has been transferred to Atlanta, Ga., to replace **William H. Stadelman,** retired.

MECHANICAL

W. R. Cowdrey has been appointed master mechanic of the ATCHISON, TOPEKA & SANTA FE at Newton, Kan., succeeding **W. A. Birch,** who has retired.

As *Railway Age* reported on November 17, **E. W. Gebhardt,** assistant superintendent, car department of the CHICAGO & NORTH WESTERN, has been appointed superintendent, car department, with headquarters as before at Chicago. Mr. Gebhardt began his railroad career with the C&NW as a clerk in the piecework department of the car department in 1917 and was named chief clerk in 1921. After completing a carman's apprenticeship course in 1926, he served as a new equipment inspector at numerous car building plants, both passenger and freight, and was appointed assistant car foreman in 1927 at Chicago. In 1942 he became foreman of the Chicago shop's streamliner ramp and in 1944 was named general car foreman at the Chicago coach yard. He was appointed district supervisor of car maintenance in 1945 and two years later was named assistant superintendent, car department.

Cecil D. Schwine, Jr., assistant master mechanic of the SOUTHERN, has been promoted to master mechanic, with headquarters remaining at Birmingham, Ala. **Walter G. Schweinebraten,** general foreman at Somerset, Ky., has been promoted to assistant master mechanic at Birmingham, succeeding Mr. Schwine.

PURCHASES & STORES

C. W. Bollman, Jr., has been appointed general purchasing agent of the NEWBURGH & SOUTH SHORE, LAKE TERMINAL, DONORA SOUTHERN, MCKEESPORT CONNECTING, NORTHAMPTON & BATH and HANNIBAL CONNECTING at Pittsburgh. He succeeds **H. J. Grance,** who has been elected secretary and treasurer of these roads.

ENGINEERING

E. L. Hoffman has been named division engineer, Nebraska Division, of the CHICAGO & NORTH WESTERN at Norfolk, Neb. He succeeds **A. A. Colvin,** who has retired.

D. T. Yeats, who has been superintendent of a treating plant for the SEABOARD AIR LINE at Hull, Fla., has been appointed assistant engineer of the Alabama division at Americus, Ga. **J. J. Vereen, Jr.,** assistant engineer of the Virginia division at Raleigh, N.C., has been transferred to the South Florida division at Tampa, Fla.

Richard E. Franklin, master mechanic of the SOUTHERN at Birmingham, Ala., has been appointed superintendent of maintenance equipment at Charlotte, N.C.

J. J. Clutz, assistant chief engineer of the eastern region of the PENNSYLVANIA at New York, has been appointed assistant chief engineer of the system at Philadelphia. **W. R. Garner,** division engineer on the Pennsylvania-Reading Seashore Lines and the Atlantic division of the Pennsylvania at Camden, N.J., has been transferred to the Susquehanna division at Williamsport, Pa., succeeding **P. S. Settle,** who has been transferred to the Eastern division at Pittsburgh. **J. M. Minturn, Jr.,** assistant division engineer on the Middle division at Altoona, Pa., has been promoted to division engineer at Camden to replace

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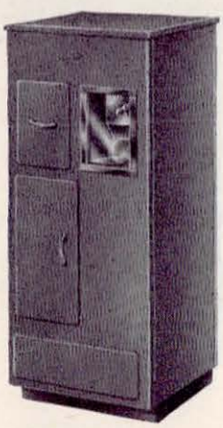
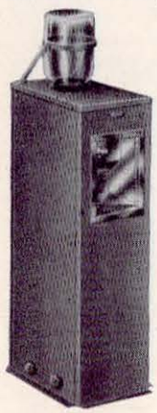


Model 17, 8-gallon capacity with food compartment and utility drawer.



Model 15; 1, 2, 3 or 5 gallon capacity

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Mr. Garner. **H. P. Morgan,** assistant division engineer on the Columbus division at Columbus, Ohio, has been promoted to division engineer on the Lake division at Cleveland. **C. F. Montague,** supervisor of structures on the Atlantic division, has been promoted to assistant engineer, office of chief engineer maintenance of way, Eastern region, at Philadelphia.

OBITUARY

Ben C. Dey, retired general attorney for the SOUTHERN PACIFIC, died on November 25, at San Francisco.

Robert J. Lascelles, vice-president and comptroller of the PULLMAN COMPANY, died in Chicago on November 25. Mr. Lascelles had served with the company since 1921 and had been secretary-treasurer prior to his promotion to vice-president and comptroller in September of this year. According to a coroner's report, Mr. Lascelles took his own life.

Fred H. Shaffer, 70, who retired on January 1, 1950, as vice-president — operation of the ST. LOUIS - SAN FRANCISCO, died at Baptist Hospital, Springfield, Mo., on November 6.

John H. Rigby, 74, who retired in March 1946 as general manager of the COLUMBUS & GREENVILLE, died on November 24 at Loudon, Tenn.

ORGANIZATIONS

Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings.

AIR BRAKE ASSOCIATION.—Lawrence Wilcox, Room 827, 80 E. Jackson Blvd., Chicago 4, Ill.

ALLIED RAILWAY SUPPLY ASSOCIATION.—C. F. Weil, P. O. Box 5522, Chicago 80, Ill.

AMERICAN ASSOCIATION OF BAGGAGE TRAFFIC MANAGERS. — T. R. Stanton, 1450 Railway Exchange Bldg., St. Louis 1, Mo. Annual meeting, June 9-11, 1953, Hotel Statler, Detroit, Mich.

AMERICAN ASSOCIATION OF PASSENGER RATE MEN. —Paul Nordgren, Chicago, North Shore & Milwaukee, 105 W. Madison St., Chicago 2, Ill.

AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS. — B. D. Branch, Eastern Timetable Distributing Company, Liberty Street Terminal, New York 6, N. Y.

AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—Miss Elise La Chance, Room 901, 431 S. Dearborn St., Chicago 5, Ill.

AMERICAN ASSOCIATION OF TRAVELING PASSENGER AGENTS.—C. A. Melin, P. O. Box 5025, Cleveland 1, Ohio.

AMERICAN COUNCIL OF RAILROAD WOMEN.—Eleanor Runquist, Pullman Company, Merchandise Mart Plaza, Chicago 54, Ill.

AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—Miss Elise La Chance, Room 901, 431 S. Dearborn St., Chicago 5, Ill. Annual meeting, September 15-17, 1953, Conrad Hilton Hotel, Chicago, Ill.

AMERICAN RAILWAY CAR INSTITUTE.—W. C. Tabbert, 19 Rector St., New York 6, N. Y.

AMERICAN RAILWAY DEVELOPMENT ASSOCIATION. — P. R. Farlow, Illinois Central, 135 E. Eleventh Pl., Chicago 5, Ill. Annual meeting, April 20-22, 1953, Battle House Hotel, Mobile, Ala.

AMERICAN RAILWAY ENGINEERING ASSOCIATION.— Works in cooperation with the Association of American Railroads, Engineering Division—Neal D. Howard, 59 E. Van Buren St., Chicago 5, Ill.

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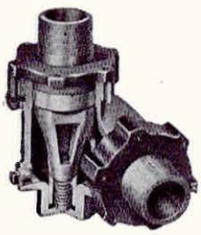

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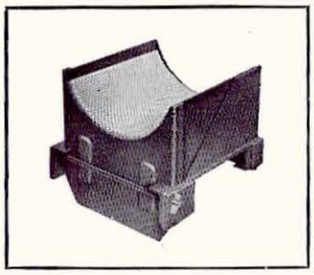
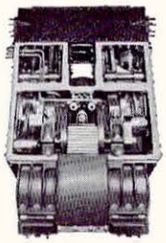
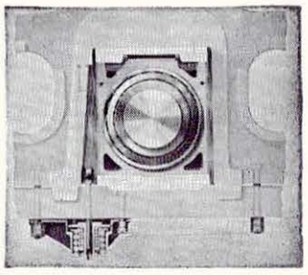


Driving Box Lubricators



The Locomotive Booster



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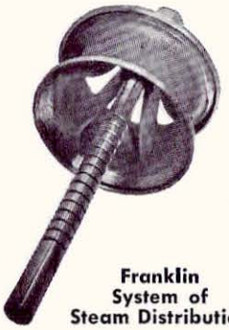

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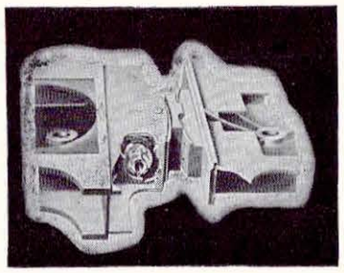
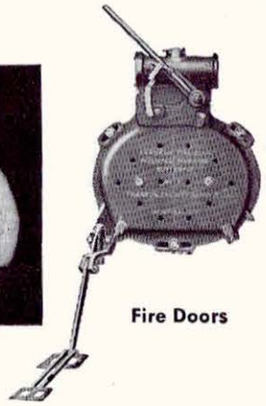


Radial Buffers



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Annual meeting, March 17-19, 1953, Palmer House, Chicago, Ill.

AMERICAN RAILWAY MAGAZINE EDITORS ASSOCIATION.—T. J. Zirbes, Jr., Rock Island Lines News Digest, La Salle Street Station, Chicago 5, Ill.

AMERICAN SHORT LINE RAILROAD ASSOCIATION.—C. E. Huntley, 2000 Massachusetts Ave., N. W., Washington 6, D. C. Special meeting, June 23, 1953, Haddon Hall, Atlantic City, N. J.

AMERICAN SOCIETY FOR TESTING MATERIALS.—R. J. Painter, 1916 Race St., Philadelphia 3, Pa. Spring meeting and committee week, March 2-6, 1953, Hotel Statler, Detroit, Mich. Annual meeting, June 29-July 3, 1953, Chalfonte-Haddon Hall, Atlantic City, N. J.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—C. E. Davies, 29 W. 39th St., New York 18, N. Y.

Railroad Division — E. L. Woodward, *Railway Mechanical and Electrical Engineer*, 79 W. Monroe St., Chicago 3, Ill.

AMERICAN WOOD-PRESERVERS' ASSOCIATION.—W. A. Penrose, 839 Seventeenth St., N. W., Washington 6, D. C. Annual meeting, April 28-30, 1953, Hotel Cleveland, Cleveland, O.

ASSOCIATED TRAFFIC CLUBS OF AMERICA. — R. A. Ellison, Cincinnati Chamber of Commerce, 1203 Federal Reserve Bank Bldg., Cincinnati 2, O.

ASSOCIATION OF AMERICAN RAILROAD DINING CAR OFFICERS.—W. F. Ziervogel, 605 S. Ranken Ave., St. Louis 3, Mo.

ASSOCIATION OF AMERICAN RAILROADS.—George M. Campbell, Transportation Bldg., Washington 6, D. C.

Operations and Maintenance Department.—J. H. Aydelott, Vice-president, Transportation Bldg., Washington 6, D. C.

Operating-Transportation Division. — L. R. Knott, 59 E. Van Buren St., Chicago 5, Ill.

Operating Section.—H. S. Dewhurst, 59 E. Van Buren St., Chicago 5, Ill.

Transportation Section.—H. A. Eaton, 59 E. Van Buren St., Chicago 5, Ill.

Communications Section.—A. H. Grothmann, 59 E. Van Buren St., Chicago 5, Ill.

Fire Protection and Insurance Section.—W. E. Todd, 59 E. Van Buren St., Chicago 5, Ill.

Freight Station Section.—W. E. Todd, 59 E. Van Buren St., Chicago 5, Ill.

Medical and Surgical Section.—H. S. Dewhurst, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, April 6, 1953, Drake Hotel, Chicago, Ill.

Protective Section.—H. S. Dewhurst, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, May 12-14, 1953, Williamsburg Inn, Williamsburg, Va.

Safety Section.—H. S. Dewhurst, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, June 2-4, 1953, Hotel Statler, St. Louis, Mo.

Electrical Section of the Engineering and Mechanical Divisions.—S. W. Marras, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, June 24-26, 1953, Convention Hall, Atlantic City, N. J.

Engineering Division.—E. G. Gehrke, 59 E. Van Buren St., Chicago 5, Ill.

Construction and Maintenance Section.—Neal D. Howard, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, March 17-19, 1953, Palmer House, Chicago, Ill.

Signal Section—R. H. C. Balliet, 59 E. Van Buren St., Chicago 5, Ill.

Mechanical Division.—Fred Peronto, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, June 22-26, 1953, Convention Hall, Atlantic City, N. J.

Purchases and Stores Division.—John L. Timanus, Transportation Bldg., Washington 6, D. C. Annual meeting, June 22-26, 1953, Convention Hall, Atlantic City, N. J.

Freight Claim Division.—C. C. Beauprie, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, May 12-14, 1953, Conrad Hilton Hotel, Chicago, Ill.

Car Service Division.—Arthur H. Gass, Chairman, Transportation Bldg., Washington 6, D. C.

Finance, Accounting, Taxation and Valuation Department. — Arthur R. Seder, Vice-president, Transportation Bldg., Washington 6, D. C.

Accounting Division.—R. E. Keefer, Transportation Bldg., Washington 6, D. C. Annual meeting, June 2-4, 1953, Edgewater Beach Hotel, Chicago.

Treasury Division.—R. E. Keefer, Transportation Bldg., Washington 6, D. C.

Traffic Department.—Walter J. Kelly, Vice-president, Transportation Bldg., Washington 6, D. C.

ASSOCIATION OF INTERSTATE COMMERCE COMMISSION PRACTITIONERS.—Miss Sarah F. McDonough, Executive Secretary, 2218 I.C.C. Building, Washington 25, D. C. Annual meeting, May 13-14, 1953, St. Francis Hotel, San Francisco, Cal.

ASSOCIATION OF RAILROAD ADVERTISING MANAGERS.—C. D. Perrin, Asst. Secy., 85 West Harrison St., Chicago 5, Ill. Annual meeting, January 21-24, 1953, Greenbrier Hotel, White Sulphur Springs, W. Va.

ASSOCIATION OF RAILWAY CLAIM AGENTS.—F. L. Johnson, Gulf, Mobile & Ohio, 104 St. Francis St., Mobile 5, Ala. Annual meeting, May 20-22, 1953, Hotel Statler, Detroit, Mich.

BRIDGE AND BUILDING SUPPLY ASSOCIATION.—L. R. Gurley, Modern Railroads, 201 N. Wells St., Chicago 6, Ill.

CANADIAN RAILWAY CLUB. — C. R. Crook, P.O. Box 162, Montreal 3, Que. Regular meetings, second Monday of each month, except June, July and August, Mount Royal Hotel, Montreal, Que.

CAR DEPARTMENT ASSOCIATION OF ST. LOUIS.—D. W. Kramer, Relay Depot Mail Room, East St. Louis, Ill. Regular meetings fourth Tuesday of each month except June, July and August, Hotel DeSoto, St. Louis, Mo.

CAR DEPARTMENT OFFICERS' ASSOCIATION.—F. H. Stremmel, 6536 Oxford Ave., Chicago 31, Ill.

CAR FOREMEN'S ASSOCIATION OF CHICAGO.—W. R. McCain, Mather Stock Car Company, 326 N. Michigan Ave., Chicago 1, Ill. Regular meetings, second Monday of each month, except June, July and August, LaSalle Hotel, Chicago, Ill.

CENTRAL RAILWAY CLUB OF BUFFALO.—R. E. Mann, Hotel Statler, McKinley Square, Buffalo 5, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.

EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—H. C. Rochester, Canadian National, 891 Notre Dame St., West, Montreal 3, Que.

EASTERN CAR FOREMAN'S ASSOCIATION. — W. P. Dizard, 30 Church St., New York 7, N. Y. Regular meetings, second Friday of January, February, March, April, May, October and November, 29 W. 39th St., New York, N. Y.

LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—C. M. Lipscomb, 1721 Parker St., North Little Rock, Ark.

MAINTENANCE OF WAY CLUB OF CHICAGO.—E. C. Patterson, 400 W. Madison St., Chicago 6, Ill. Regular meetings, fourth Monday of each month, October through April, inclusive, except December, which is third Monday, at Eitel's Restaurant, Field Bldg.

MASTER BOILER MAKERS' ASSOCIATION. — A. F. Stiglmeier, 29 Parkwood St., Albany 8, N. Y.

METROPOLITAN MAINTENANCE OF WAY CLUB.—John S. Vreeland, Simmons-Boardman Publishing Corp., 30 Church St., New York 7, N. Y. Meets in February, April, October and December. Next meeting, February 26, 1953, Hotel Shelbourne, New York.

MILITARY RAILWAY SERVICE VETERANS. — J. E. McNamara, 332 S. Michigan Ave., Chicago 4, Ill. Annual meeting, September 18-20, 1953, New Orleans, La.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Austin L. Roberts, Jr., 7413 New Post Office Bldg., Washington 4, D. C.

NATIONAL ASSOCIATION OF SHIPPERS' ADVISORY BOARDS.—J. W. Witherspoon, U. S. Rubber Company, 784 San Pedro St., S. Los Angeles 14, Cal. Annual meeting, October 6-8, 1953, Omaha, Neb.

NATIONAL DEFENSE TRANSPORTATION ASSOCIATION.—Miss Lois E. Casavant, 930 F. St., N. W., Washington 4, D. C.

NATIONAL INDUSTRIAL TRAFFIC LEAGUE. — L. J. Dorr, 909 Kass Bldg., Washington 5, D. C.

NATIONAL RAILWAY APPLIANCES ASSOCIATION.—J. B. Templeton, Templeton, Kenly & Co., 1020 S. Central Ave., Chicago 44, Ill. Lewis Thomas, Asst. Secy., 59 E. Van Buren St., Chicago 5, Ill.

NATIONAL SAFETY COUNCIL, RAILROAD SECTION.—F. R. Callahan, Pullman Co., Merchandise Mart Plaza, Chicago 54, Ill.

NEW ENGLAND RAILROAD CLUB.—William M. Mc-Combs, 35 Lewis Wharf, Boston 10, Mass. Regular meetings, second Tuesday of each month, except May, June, July, August and September, Hotel Vendome, Boston, Mass.

NEW YORK RAILROAD CLUB.—C. T. Stansfield, 30 Church St., New York 7, N. Y. Regular meetings, third Thursday of each month, except June, July, August, September and December, Century Room, Commodore Hotel, New York, N. Y. Reception, 6 P.M.; dinner, 7; meeting, 8:15. Annual dinner, December 11, 1952, Commodore Hotel, New York, N.Y.

NORTHWEST CARMEN'S ASSOCIATION.—G. H. Wells, Northern Pacific Railway, St. Paul 1, Minn. Regular meetings, first Monday of each month, except June, July and August, Midway Club, 1931 University Ave., St. Paul, Minn.

NORTHWEST LOCOMOTIVE ASSOCIATION. — R. M. Wigfield, Northern Pacific Ry., Room 1134, G. O. Bldg., St. Paul 1, Minn. Regular meetings, third Monday of each month, except June, July and August, Midway Club, 1931 University Ave., St. Paul, Minn.

PACIFIC RAILWAY CLUB. — S. E. Byler, 121 E. Sixth St., Los Angeles 14, Cal. Regular meetings, second Thursday of each alternate month at Sir Francis Drake Hotel, San Francisco, Cal., and Elks' Temple, Los Angeles, Cal.

RAILROAD PUBLIC RELATIONS ASSOCIATION.—J. Don Parel, Association of American Railroads, Transportation Bldg., Washington 6, D. C.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, 38 S. Dearborn St., Chicago 3, Ill.

RAILWAY CLUB OF PITTSBURGH.—G. E. Morrison, act. sec'y., 2710 Koppers Bldg., Pittsburgh 19, Pa. Regular meetings, fourth Thursday of each month, except June, July, August, September and December, Fort Pitt Hotel, Pittsburgh, Pa.

RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price, Allen-Bradley Company, 445-447 N. LaSalle St., Chicago 10, Ill.

RAILROAD FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—L. H. Peters, New York Central, Room 1213, 139 W. Van Buren St., Chicago 5, Ill.

RAILWAY SYSTEMS AND PROCEDURES ASSOCIATION.—J. W. Milliken, *Railway Age*, 30 Church St., New York 7, N. Y. Next meeting, December 11-12, 1952, Palmer House, Chicago, Ill.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION. — A. W. Brown, 60 E. 42nd St., New York 17, N. Y. Exhibit in conjunction with meetings of the Mechanical Division and Purchases & Stores Division, A.A.R., June 22-27, 1953, Convention Hall, Atlantic City, N. J.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION. — G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with Communications Section of A.A.R.

RAILWAY TIE ASSOCIATION. — Roy M. Edmonds, 1221 Locust St., St. Louis 3, Mo.

ROADMASTERS AND MAINTENANCE OF WAY ASSOCIATION.—Miss Elise La Chance, Room 901, 431 S. Dearborn St., Chicago 5, Ill. Annual meeting, September 15-17, 1953, Conrad Hilton Hotel, Chicago, Ill.

ST. LOUIS RAILROAD DIESEL CLUB.—F. C. Whitlock, Terminal Railroad Association of St. Louis, 376 Union Station, St. Louis 3, Mo. Regular meetings, second Tuesday of each month, Hotel York. Dinner, 6:45 P.M., meeting, 8.

SIGNAL APPLIANCE ASSOCIATION. — G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with A.A.R. Signal Section.

SOUTHEASTERN RAILWAY DIESEL CLUB. — H. W. Brewer, Seaboard Air Line, Jacksonville, Fla. Regular meetings, second Tuesday in February, April, June, August, October and December, 9:30 a.m., Mayflower Hotel, Jacksonville, Fla.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB. — A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel. Atlanta, Ga.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—F. I. Umhau, Southern Ry., Atlanta 3, Ga.

TORONTO RAILWAY CLUB.—J. A. North, P.O. Box 8, Terminal "A," Toronto 2, Ont. Regular meetings, fourth Monday of each month, except June, July, and August, Royal York Hotel, Toronto, Ont.

TRACK SUPPLY ASSOCIATION.—Lewis Thomas, Q and C Company, 59 E. Van Buren St., Chicago 5, Ill.

WESTERN RAILWAY CLUB.—E. E. Thulin, Suite 339, Hotel Sherman, Chicago 1, Ill. Meetings scheduled for December 20, 1952, February 16, March 23, April 20, May 18, 1953, Hotel Sherman, Chicago, Ill.

WESTERN ASSOCIATION OF RAILWAY TAX COMMISSIONERS.—M. L. Boydston, 516 W. Jackson Blvd., Chicago 6, Ill. Regular meetings, 12:15, first Wednesday of each month, except July and August, Traffic Club, Palmer House, Chicago, Ill. Annual meeting, February 10, 1953, Palmer House, Chicago, Ill.

MEMORANDUM TO:

The Financial Vice President

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Current Publications

PAMPHLETS

American Wood-Preservers' Association Manual of Recommended Practice. New and revised standards for inclusion in existing manuals. Published by American Wood-Preservers' Association, 839 Seventeenth st., N.W., Washington 6, D.C.

New and revised standards, based on specifications approved by the 1952 annual meeting of the A.W.P. A., include: Revised standard for creosote; revision of pressure treatment requirements for Pacific Coast Douglas fir piles and poles, and jack, red and lodgepole pine poles and posts; addition of pressure treatment specifications for jack pine, lodgepole pine, red pine, and western larch piles, as well as Pacific Coast Douglas fir posts; a completely revised standard for use of pressure treated lumber in buildings; a new standard for pressure preserved wood for highway construction; revision of standards for purchase and preservation of forest products, inspection of treated wood, and care of pressure treated wood after treatment; and a complete revised glossary of terms used in wood preservation.

Highway Facts. 88 pages, charts, maps. Automotive Safety Foundation, Hill bldg., Washington 6, D. C. Free.

Issued in an attempt to answer as many as possible of the questions which laymen are asking about the United States road and street system, this booklet covers the highway plant, federal aid, service, condition of road plant, estimated improvement costs, legislation and management, and expenditures. Much of the data have been drawn from statistics published by the U.S. Bureau of Public Roads and the American Association of State Highway Officials. The pamphlet also contains a glossary of terms, a directory of highway films, and a list of national organizations from which additional information on highways may be obtained.

The Steel Labor Case of 1952. 20 pages. Steel Companies in the Wage Case, Room 5401, 350 Fifth ave., New York 1. Free.

To protect the American economy against such disasters as the steel strike of June and July, "the American people and their legislators will have to seek more permanent solutions and fair and just procedures" in labor-management disputes. This is the conclusion of the Steel Companies in the Wage Case. Responsible executives "know that the industry and the public cannot endure the far-reaching toll of continued industry-wide strikes in steel," the booklet states. "For their own responsibility steel industry leaders have already publicly asserted their determination to seek with union leaders a better understanding of mutual problems and better ways of solving them." Point by point this "white paper" of the steel industry retraces the tragic record of negotiations and governmental intervention from the presentation of the union's "22-point program of generalities" in November 1951

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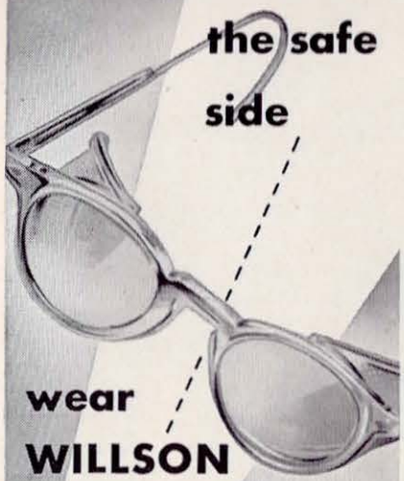

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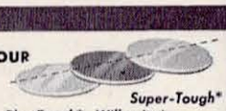

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to the July 24 settlement. The Steel Companies in the Wage Case point out that "a major proportion of the public became aware that compulsory unionism was the principal issue" and that public and Congressional pressure helped the industry to oppose it successfully. "But," the statement adds, "a less conspicuous dispute with identical issues might not have so aroused the public and the Congress."

BOOKS

The Firestone Story; A History of the Firestone Tire & Rubber Co., by Alfred Lief. 437 pages, illustrations. Whittlesey House, 330 W. 42nd st., New York 36. $4.50.

Here are the memoirs of a modern industrial enterprise—an intimate business history of the Firestone Tire & Rubber Co. The author follows Harvey S. Firestone, the company's founder, and his sons and associates through every stage in development of the business, solution of its problems, and fulfillment of its objectives.

Freight Commodity Statistics, Class I Steam Railways in the United States for the Year Ended December 31, 1951. 280 pages. Prepared by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Available from the Government Printing Office, Washington 25, D. C. $2.25.

Shows for each Class I railway and for each commodity, freight traffic originated and terminated, total freight traffic carried and freight revenue.

Selected Income and Balance-Sheet Items of Class I Steam Railways in the United States

Compiled from 127 Reports (Form IBS) representing 131 steam railways

(Switching and Terminal Companies Not Included)

	United States			
	For the month of August		For the eight months of	
	1952	1951	1952	1951
1. Net railway operating income	$104,939,432	$82,687,202	$611,327,834	$527,579,739
2. Other income	16,942,620	17,568,387	142,319,827	151,238,601
3. Total income	121,882,052	100,255,589	753,647,661	678,818,340
4. Miscellaneous deductions from income	4,443,093	4,606,689	32,372,368	37,819,955
5. Income available for fixed charges	117,438,959	95,648,900	721,275,293	640,998,385
6. Fixed charges:				
6-01. Rent for leased roads and equipment	9,615,367	9,625,362	81,263,213	75,133,020
6-02. Interest deductions[1]	26,349,711	25,115,178	207,686,538	199,308,146
6-03. Amortization of discount on funded debt	287,915	272,908	1,959,004	1,888,830
6-04. Total fixed charges	36,252,993	35,013,448	290,908,755	276,329,996
7. Income after fixed charges	81,185,966	60,635,452	430,366,538	364,668,389
8. Other deductions	3,030,649	3,109,639	23,690,708	24,986,027
9. Net income	78,155,317	57,525,813	406,675,830	339,682,362
10. Depreciation (Way and structures and Equipment)	41,047,320	40,871,451	319,600,015	310,553,034
11. Amortization of defense projects	.....	.....	.....	.....
12. Federal income taxes	59,021,251	56,476,614	348,453,525	329,199,772
13. Dividend appropriations:				
13-01. On common stock	26,690,526	24,558,491	146,780,104	137,512,763
13-02. On preferred stock	4,511,274	5,708,086	49,744,438	67,501,379
Ratio of income to fixed charges (Item 5 ÷ 6—04)	3.24	2.73	2.48	2.32

Selected Expenditure and Asset Items	United States Balance at the end of August 1952	1951
17. Expenditures (gross) for additions and betterments—Road	$238,571,327	$216,638,124
18. Expenditures (gross) for additions and betterments—Equipment	655,373,834	653,327,067
19. Investments in stocks, bonds, etc., other than those of affiliated companies (Total, Account 707)	488,689,301	471,974,757
20. Other unadjusted debits	88,217,326	118,802,990
21. Cash	838,474,493	838,267,770
22. Temporary cash investments	881,077,053	889,213,162
23. Special deposits	69,700,907	66,234,793
24. Loans and bills receivable	871,272	2,141,061
25. Traffic and car-service balances—Dr.	68,233,959	61,343,920
26. Net balance receivable from agents and conductors	175,704,384	159,723,465
27. Miscellaneous accounts receivable	365,330,999	379,737,763
28. Materials and supplies	879,232,817	911,728,799
29. Interest and dividends receivable	14,718,173	13,816,979
30. Accrued accounts receivable	221,634,701	222,514,167
31. Other current assets	36,244,446	34,872,575
32. Total current assets (items 21 to 31)	3,551,223,204	3,579,594,454
Selected Liability Items		
40. Funded debt maturing within 6 months[2]	$230,311,850	$155,380,330
41. Loans and bills payable[3]	7,317,624	6,212,471
42. Traffic and car-service balances—Cr.	101,080,086	103,628,295
43. Audited accounts and wages payable	522,610,199	571,659,548
44. Miscellaneous accounts payable	203,130,389	198,470,718
45. Interest matured unpaid	23,046,416	21,698,039
46. Dividends matured unpaid	10,669,679	9,526,176
47. Unmatured interest accrued	85,308,508	83,235,376
48. Unmatured dividends declared	46,646,972	46,617,270
49. Accrued accounts payable	214,558,469	234,078,845
50. Taxes accrued	862,117,732	860,532,200
51. Other current liabilities	102,970,531	92,978,707
52. Total current liabilities (items 41 to 51)	2,179,456,605	[2,228,637,645
53. Analysis of taxes accrued:		
53-01. U. S. Government taxes	635,829,765	660,313,194
53-02. Other than U. S. Government taxes	226,287,967	200,219,006
54. Other unadjusted credits	266,773,143	287,711,841

[1] Represents accruals, including the amount in default.
[2] Includes payments of principal of long-term debt (other than long-term debt in default) which becomes due within six months after close of month of report.
[3] Includes obligations which mature not more than one year after date of issue.
Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission.
Subject to revision.

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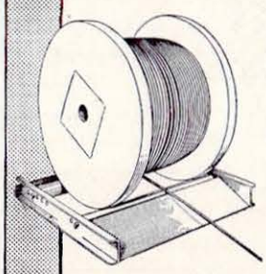

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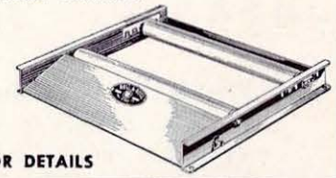

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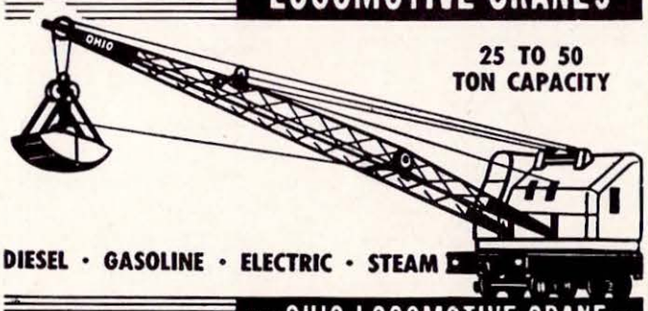

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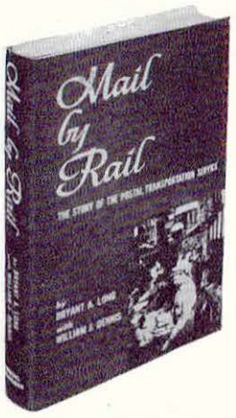

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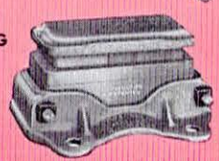

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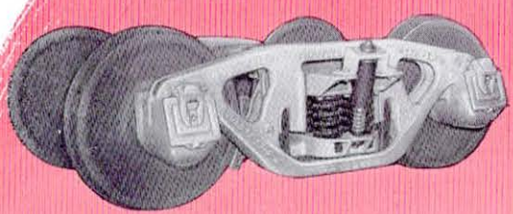

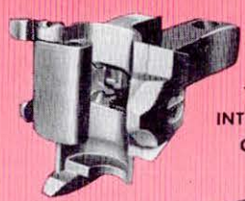

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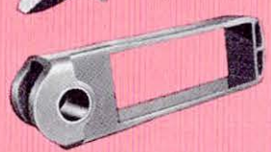

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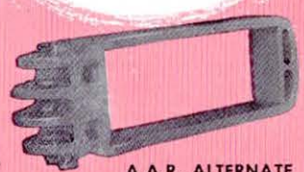

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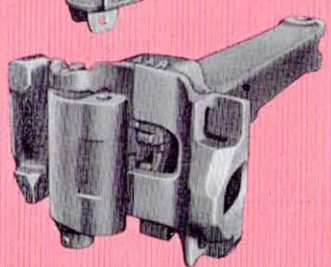

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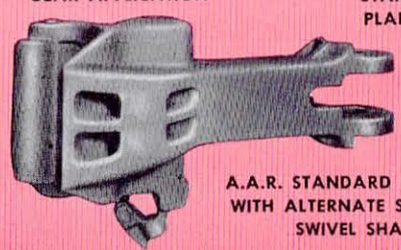

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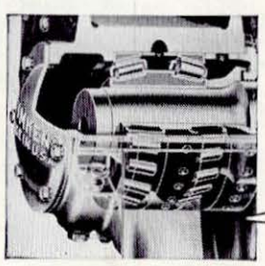

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